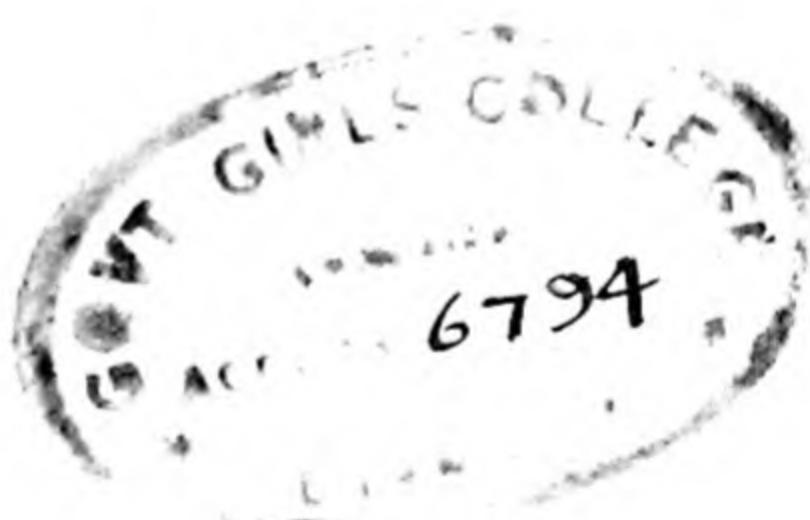


**YOUR DIET —
IN HEALTH AND DISEASE**

206

YOUR DIET— In Health and Disease

By
HARRY BENJAMIN
MEMBER BRITISH ASSOCIATION OF NATUROPATHS



KITABISTAN
ALLAHABAD

FIRST PUBLISHED IN INDIA 1947



CART

649-6

243Y



PRINTED BY J. K. SHARMA AT THE ALLAHABAD LAW JOURNAL
PRESS, ALLAHABAD AND PUBLISHED BY KITABISTAN, ALLAHABAD

CONTENTS

	PAGE
PREFACE	7
INTRODUCTION	9
CHAPTER I	
FOOD—ITS DIGESTION, ABSORPTION, AND ASSIMILATION	17
CHAPTER II	
HOW THE BODY WORKS	26
CHAPTER III	
OUR DAILY FOOD	35
CHAPTER IV	
HOW THE NATION'S FOOD IS DEBASED	44
CHAPTER V	
THE NEED FOR "PURE FOOD"	56
CHAPTER VI	
EATING FOR HEALTH, NOT DISEASE	67
CHAPTER VII	
THE ART OF COMBINING FOODS	83
CHAPTER VIII	
VEGETARIANISM AND MEAT-EATING	99
CHAPTER IX	
THE FEEDING OF CHILDREN	108

PAGE

CHAPTER X

CONCLUSION	114
------------------	----	----	----	----	----	----	-----

APPENDIX

A COMPLETE GUIDE TO HEALTH	120
----------------------------------	----	----	----	----	----	----	-----

CHART OF TREATMENT FOR COMMON AILMENTS	149
--	----	----	----	----	----	----	-----

ADDITIONS TO APPENDIX FOR REVISED AND
ENLARGED EDITION

A WEEK'S MENUS FOR CHILDREN	163
-----------------------------------	----	----	----	----	----	----	-----

SOME NOTES ON VITAMINS	166
------------------------------	----	----	----	----	----	----	-----

TABLE OF ACID- AND ALKALINE-FORMING FOODS	170
---	----	----	----	----	----	----	-----

PREFACE TO SIXTH (REVISED AND ENLARGED) EDITION

The general public is now far more "diet conscious" than it was when this book was first published in 1931, thanks to the great vogue recently enjoyed by the "Hay Diet," and to the more enlightened attitude evinced by the medical profession generally on the subject (or, at least, by certain of its more influential members); but there is still much need for public enlightenment on the general principles and application of the Science of Dietetics, and that is why the author of the present volume feels that the time is now ripe for his book to be overhauled and brought right up to date, to serve more fully than ever in its task of bringing the desired information and guidance before those in need of its help. (To further meet this need the publishers have decided to reduce publishing costs to the minimum in order to bring out the new and revised edition at a lower price than that formerly asked for the book, despite the fact that it will now contain more information on the subject of diet than heretofore.)

When this diet book was first contemplated (in 1929) there was not such definite information as to the nature and value of *vitamins* as exists to-day; accordingly some further material in relation to this aspect of the diet question is being included in the revised edition, as the author feels it essential that his readers should be kept in touch

with the latest developments in this field. Also, he has thought it advisable to include in the new edition a list of the *acid-and alkaline-forming foods*, as many of his readers seem to think such a list necessary. Further, with regard to the *Treatment Section* of the book, which many readers have found so helpful to them in the eradication of long-standing ailments from which they have been suffering, the author thinks it worth mentioning here that he now has in existence a far more comprehensive book dealing with the treatment of disease along Nature Cure lines, called: *Everybody's Guide to Nature Cure*, which can be obtained through any bookseller, price Rs. 9, or direct from the publishers. (The same publishers as the present book.) Many thousands have already found this book of the greatest possible value to them, and it is hoped that a great many thousands more will do so as time goes on. There is much need of the help that Nature Cure treatment can give to the sufferer from disease.

Finally, with regard to the present book, the author earnestly hopes that this new and enlarged edition will meet the needs of an even wider range of readers than heretofore, and looks forward with confidence to the time when the dietetic ideas that he has endeavoured to promulgate will receive the full acceptance of the public at large, as the necessity for a vital change in their dietetic habits is gradually brought home to them, through increasing ill-health and shortened lives, and the realisation that most, if not all, of the misery and suffering that go with orthodox feeding and living is self-manufactured, through ignorant acceptance of conventional standards and ideas.

INTRODUCTION

It is only within the last few years, comparatively, that the subject of diet has received any serious attention from the more thoughtful and enlightened members of the human family; the chief reason for the neglect of this all-important and vital branch of our public economy being the inability on the part of those to whom the public look for guidance in these matters, namely, the leaders of medical and scientific thought, to realise and understand the part played by diet, and food in general, in the building up of a healthy or diseased society. This relationship between diet and health and disease is now slowly but surely forcing its attention upon all those capable of serious observation. And, in spite of the ignorance displayed by the majority of medical men upon the subject, a belief is spreading among the more advanced of the general public, that in some way or other (rather vaguely and dimly perceived by them) there is really something about the question of diet that is of importance to themselves, although they have little or no idea as to what this relationship actually is.

These first faint stirrings in the public mind have been brought about mainly as a result of the widened and increased publicity which has of late been given to the question of diet and dieting in the columns of the daily press, popular magazines and periodicals; and this especially with regard to the overcoming of obesity, or any tendency there-

to, such as might be displayed by ardent followers of Dame Fashion. The slimming effects of certain foods and the better health obtained as a result of their use have brought home to many people, in this crude and somewhat indirect way, the part which diet can play in regulating the fitness of the body; but in spite of this slight fillip given to the subject, it can be stated generally that at the present time there is still a widespread ignorance on the part of the medical profession, press, and public alike, with regard to the fundamental facts of the science of dietetics and its bearing on the life and health of the individual.

This lack of knowledge manifests itself daily before our eyes in the way in which invalids, children and grown-ups alike, are *allowed* to eat, *given* to eat, and sometimes even *forced* to eat, articles of food which, by anyone with the slightest knowledge of the subject, would be recognised at once as harmful to the health of the body.

This eating of food without regard to its suitability *as food for the body* is undoubtedly the main factor at work in the causation of disease in general, and unsound health in particular, in the world to-day; and until it is rectified, there is little hope of any drastic reduction of the colossal disease bill which this country is called upon to foot every year, and which shows every sign of increasing rather than diminishing as years go by, in spite of all the wonders of modern scientific and medical research.

There is no reason at all, however, for this obscurity in which the whole subject of diet has been shrouded for so many years, or for the manner in which it has been almost religiously kept from the public view. For a science of dietetics has been evolved which deals with the whole question of food, food values, and the relationship

of nutrition to health and disease in general; even though its very existence has been completely ignored by the accredited leaders of the public in these matters, namely, the medical profession. For that body, to which the public so docilely turns for guidance on questions such as these, and which, by virtue of its prestige and power over the public mind, is in very truth the power which shapes public opinion upon all matters relating to health and disease, has, as a whole, persistently refused to pay any attention whatsoever to the assertions and claims of the pioneers of dietetic research, even though they are based upon the soundest physiological principles. And as a result, with the exception of one or two outstanding individuals, to the medical profession as a whole, the science of dietetics and the all-important implications derived therefrom, are a closed book.

It is this ignoring of the vital relationship existing between food and health or disease by the medical profession, and its consequential disregard by the general public, that is responsible for the ignorance displayed on all sides to-day in matters relating to food and feeding, with such dire results to the nation's health. (A curious and tragic anomaly, this, that the profession which above all others sets out to lift the burden of suffering and disease from off the backs of mankind, should through its own blindness and folly succeed in bringing about an increase in the very thing it is trying to overcome !)

The science of dietetics finds no place in the curriculum of any medical college, and no knowledge of the subject is therefore required by the young medico when taking his degree; so that it seems that the medical profession of the future will be just as ill-informed upon these

vitally important matters as the present generation of doctors. The relationship of what we eat to the health or disease of the body is not considered worthy of attention by the men who are recognised by all as the nation's bulwark against disease and the guardians of our health!

The truth of the matter is, of course, that the medical mind generally is so engrossed in discovering "the germs" of disease and combating them, that it has no time to think about health and its preservation (which is after all the best and surest way to overcome disease); and as a consequence, to the leaders of medical thought, with all their time and attention taken up with visions of microbes, germs, drugs, toxins, anti-toxins, vaccines, sera, and the like, it has seemed quite a trivial matter to worry about the kind of food we put into our bodies. It has appeared quite insignificant by comparison!

That such innocuous and harmless-looking substances as the articles which constitute our daily dietary might by any stretch of the imagination, be regarded as likely to bear any relation to the great and vital question of disease or its obverse—to the maintenance of health—has up to the present time been regarded as absurd by orthodox medical scientists, and when pressed upon the subject many eminent specialists with world-wide reputations, such as the present Lord Horder,* have said, "Eat what you like!" With this encouraging dictum to reassure them therefore the generality of mankind continues to pay as little attention to the question of diet as was the case heretofore; with

* Then Sir William Horder (when this book was first written). It is to be noted that to-day Lord Horder is one of the most advanced advocates of reformed dietetics within the ranks of the medical profession which says a very great deal indeed for the increase in dietetic knowledge that has come to some members of that profession within recent years.

the result that the statistics for diseases such as rheumatism, arthritis, cancer, kidney disease, heart disease, diabetes, etc., continue to increase yearly, much to the concern of the aforesaid eminent gentlemen.

The New Health Society, founded as it has been by one of the leading lights of the medical profession, has caused a few of the leaders of orthodox medicine to pay some grudging attention to the part played by diet in building up diseased conditions, but even with this added interest applied to the subject, no serious attempt has been made by medical men in general to get to grips with the food question.

It has been the work of another body of workers in the field of disease to formulate the various facts and theories relating to the subject of food, food values, and the part played by food in the building up and breaking down of the human organism (so grossly neglected by the medical profession) into a definite science built upon a foundation of actual experience and direct observation; it is to the pioneers of Natural Therapeutics or "Nature Cure" that the science of dietetics owes its inception and whatever publicity it possesses.

It is thanks to the efforts of the leaders of these new methods of healing that the science of dietetics has emerged fully fledged into the light of day; and the placing of the whole subject upon a really sound and definite scientific basis has been the work of Naturopaths like Dr. Lindlahr and Dr. Tilden, both of whom have written books on the subject of food and its relation to health and disease, which must be regarded in the nature of classics. Their work has so far received no attention whatever from orthodox medical science, with the result that their invaluable contributions

to the welfare and knowledge of mankind have been kept from the people they are intended for by the highhandedness of medical action.

The result is that what should be common knowledge to all, is unfortunately only the possession of those few who have managed somehow to surmount the barriers placed in their way by a bigoted and short-sighted profession which, in its efforts to preserve what is customary and traditional in its practice, turns a deaf ear and blind eye upon all new methods for the prevention or overcoming of disease, or theories connected therewith, which conflict with preconceived notions and upset cherished ideas.

The conclusions arrived at by Dr. Tilden and Dr. Lindlahr (both Americans, by the way), about food and its relation to health and disease, have been corroborated again and again by the researches and investigations of other workers in the field of Naturopathy, in Germany, Switzerland, America, and in this country, and remarkable successes have been obtained in the treatment of all kinds of disease, as a result of the application of the principles of the true science of dietetics.

Numberless cases are on record of seemingly miraculous cures effected simply by means of dieting, aided by such simple remedial measures as cold packs, manipulative treatment, sunlight, etc., and it is worthy of note that many of the people thus restored to health had been given up previously as incurable by orthodox medical men.

If an understanding of scientific dieting is so invaluable in overcoming disease, how much more is it valuable in maintaining the health of the body?—for disease simply means the absence of health; and it is to enable every individual capable of thinking for himself or herself to gain a comprehensive

knowledge of the whole subject of dietetics, either for the maintenance of health or for the curing of disease, that the present volume has been written.

It is the author's intention, however, to make this book as practical and helpful as possible; and to that end, not only has the vital and fundamental relationship between the food we eat and the health or disease of our bodies been dealt with in a manner capable of being easily followed and understood by those who have no pretensions to scientific knowledge, but a dietetic régime has been outlined to enable every reader to maintain his or her health and efficiency at the highest possible level; moreover, a section has been devoted to the actual treatment of all the various common ailments and diseases of to-day, such as constipation, indigestion, anaemia, rheumatism, sciatica, etc. In this section, by means of short fast régimes, specimen diets, fruit diets, eliminative diets, and various auxiliary health measures such as sitz-baths, frictions, exercises, and the like, a comprehensive system of home treatment has been outlined which will enable the reader to undertake immediately in his or her own home the self-cure of any diseases he or she may be suffering from, without having to resort to the use of any outside mechanism whatsoever.

That there is an overwhelming need for a book on diet such as is attempted here, dealing as it does with the subject in a sane, practical, and straightforward manner, and being published at a price which brings it within the reach of all, has been obvious to the writer from the moment he first became acquainted with the philosophy of Nature Cure; and if his book can in some measure help to lift the immense burden of unnecessary suffering under which his fellow men are now slowly but surely being crushed, he will have considered his work to have been well worth while.

CHAPTER I

FOOD—ITS DIGESTION, ABSORPTION, AND ASSIMILATION

“The function of food is to supply the body with the materials necessary for the growth, maintenance, repair, and efficient functioning of its various organs and structures, and in this way to ensure the harmonious working of the whole human machine at its highest level.”

It follows from the above definition of the purpose and function of food, that to obtain the maximum amount of benefit from the food we eat, we have to discover those foods, and the quantities of such foods, best suited to the needs of the body as revealed by physiological study and investigation; this in brief is the whole purpose of the science of dietetics and the first consideration to be settled in this book.

Given the food most suited to its requirements, the body is supplied with the elemental basis for its full growth and development; but if indiscriminately given substances *called* food by virtue of custom, tradition, or public opinion, without regard to their reaction once inside the body, we have the seed sown for future trouble and ill-health; the main generative cause of an infinite amount of suffering and distress.

The only way to build a healthy body is to understand *why we eat*, and *what we eat*; and once the simple fact is grasped that it is by *what we put into our mouths* that we decide either for good or evil what is to take place inside our bodies, then the way has been opened up for a sane and intelligent under-

standing of the facts and considerations to be discussed in the present volume.

THE ALIMENTARY CANAL

As it is impossible to give any opinion worthy of the name on the subject of diet without having first some ideas as to what takes place inside the body when food has entered it, the changes it undergoes, and the uses it is put to by the system, it is imperative at the commencement of a book such as this to give a brief but adequate account of the processes whereby food is digested, absorbed, and assimilated by the body, and the means by which the nutrient elements thus obtained are taken up and used by the organism in the process known as metabolism. (The reader need not be alarmed and imagine that he is about to wade through a mass of dry scientific data and material; but without this preliminary understanding of what *really* happens to food when it is taken into the body, all that follows in the later chapters would not be clearly understood.)

Most people blissfully imagine that once they have eaten anything and swallowed it, and so long as no direct bad after-effects are felt, that is the end of the matter as far as they are concerned; but in reality it is only the beginning!

For once food is taken into the system, a continuous and inevitable series of operations is set in motion which are quite outside our powers to interfere with, except at grave risk to the individual. It is therefore in order to dispel any possibility of such ignorance on the part of the reader, that the following incursion into the realms of physiology and anatomy is primarily undertaken.

When food enters the body, it undergoes various metamorphoses or changes before it is broken down into its consti-

tuent parts, and the elements necessary for the life of the organism are taken up and assimilated. It is the ultimate object of all food to be assimilated, but before one particle of potential nourishment can enter the body proper, it has first to be digested and then absorbed in that part of our internal economy known as the *alimentary canal*, whilst the residue unfit for absorption is eliminated from the system. It is essential to grasp this fundamental fact: no food can be assimilated by the system and used by the various structures and organs until it has been first dealt with in the alimentary canal and rendered fit for absorption; which makes it obvious, at once, that it does not depend upon the amount of food we eat, but upon the amount we are able to absorb and assimilate, as to whether our bodies are well nourished or not. The following condensed account of the work carried on in the alimentary canal is designed to show clearly *what is actually meant* when we use the terms digestion, absorption, and assimilation, as otherwise they are merely words as far as the reader is concerned, and therefore meaningless.

DIGESTION AND ABSORPTION

The alimentary canal is the name given to the continuous series of organs which deal with the digestion, absorption, and elimination of waste residue of food in the body. The organs concerned are the mouth (including the tongue and teeth), pharynx or food-bag, œsophagus or gullet, stomach, small intestine, large intestine or colon, rectum and anus.

The Mouth

The process of digestion is begun in the mouth through the medium of what is known as *mastication*. This is per-



The Abdominal Portion of the Alimentary Canal

- C. Cardiac opening of the stomach.
- P. Pylorus. D. Duodenum. J. Jejunum. I. Ileum.
- CC. Cæcum. AC. Ascending colon. TC. Transverse colon. DC. Descending colon. R. Rectum.

Fig. 80, page 83, Furnaux and Smart's "Human Physiology."

formed by the *teeth*, assisted by the *tongue* and helped by a fluid secreted by the *salivary glands*, and known as *saliva*.

The saliva, in addition to helping to masticate the food by making it capable of being swallowed easily, has the power to dissolve *starch*, and to turn it into a form of sugar known as *Maltose*, by means of an enzyme or ferment known as *ptyalin*, which it contains. (All the digestive juices contain these enzymes or ferments; they are their active principles and have the power to change the chemical composition of the various substances taken into the body as food.)

The necessity for thoroughly masticating starchy foods in the mouth therefore will be at once apparent, as the *ptyalin* cannot otherwise carry out its function. It is worthy of note that if starchy food is hastily swallowed into the stomach, the action of the *ptyalin* goes on for a time, but the *hydrochloric acid* secreted by the stomach soon stops its action, and the starch is not turned into sugar until it passes into the intestines and is acted upon by the *pancreatic fluid*. *Ptyalin* does not appear in the mouth until the teeth begin to show themselves (about the seventh month after birth, that is, so that the relationship between starch digestion and thorough mastication is obvious.

The Aesophagus

After the food has been masticated it is collected into a ball by the tongue and passed into the *pharynx*, which lies at the back of the mouth, and from the pharynx it is forced into the *œsophagus*. This is a narrow tube about ten inches long which connects the mouth and pharynx with the stomach. When the food enters the *œsophagus* it is forced downwards by means of a series of muscular contractions which are known as *peristaltic action*. (Peristaltic action is common to all portions of the alimentary canal right down

to the rectum and is the manner in which Nature passes the food along in its course through the body.)

The Stomach

The stomach is a muscular bag shaped somewhat like a letter J. The end where the œsophagus enters it is known as the *cardiac end*, and the other smaller end, as the *pyloric end*. The food enters by the cardiac orifice, and is stored at the cardiac end. Portions are then gradually introduced into the pyloric part of the stomach and are acted upon by the various sets of muscles in the muscular structure. A kind of churning process is then set up and the food is completely impregnated by the *gastric juices* secreted by the mucous membrane or innermost lining of the stomach. When the food is dissolved it is passed into the small intestine by the automatic opening of the *pylorus*, which is a sphincter or constrictive muscle.

The time taken for food to pass from the stomach to the intestines varies from one to five hours according to the substances involved in the food composition. The *gastric juices* are three in number and are secreted by three different sets of glands in the mucous lining of the stomach. They are:—

1. Mucus for lubricating the stomach.
2. Hydrochloric acid.
3. Gastric juice.

The enzyme or active principle of the gastric juice is *pepsin*, and this has the power in the presence of hydrochloric acid to dissolve *proteins*. There is also present, in children, *rennet*, which curdles milk and allows the pepsin to act upon it, but in adults this rennet is absent and the hydrochloric acid is called upon to take its place. (The amount of hydrochloric acid present in the gastric juice is about 00.2 per cent.)

The gastric juice has no effect upon starches or fats; on the other hand, in the case of starchy foods, it holds up the work of the ptyalin in the saliva, thus making it impossible for the starch to be completely turned into sugar in the stomach. In the case of fats it dissolves the tissues surrounding the fat globules, thus breaking fatty substances up into innumerable small particles of fat which are dissolved finally in the intestines. Very little assimilation of food takes place in the stomach; the actual assimilation begins in the *small intestines*.

The Intestines

When the food leaves the stomach, it passes through the pylorus into the intestines, which are divided into the *small intestine* and the *large intestine* or *colon*, and the *rectum*. The fluids secreted by the glands of the intestines are of various kinds, and their combined product is known as the *succus entericus*. It contains several enzymes or ferments, which act each upon a different class of food substances—*invertase*, *lastase*, and *erepsin* are their names.

The digestion (or conversion into a soluble form) of food, commenced in the stomach, is completed in the intestines, and as soon as the *chyme*—as the semi-fluid contents from the stomach are called—enters the *duodenum* or upper part of the small intestines, it is acted upon by two very important secretions, the *pancreatic fluid* from the pancreas, and the *bile* from the liver. These secretions are conducted, from the organs named, to the duodenum, by means of ducts.

Through the united efforts of the saliva, gastric juices, *succus entericus*, bile, and pancreatic juice, the food is at last digested or *rendered fit for absorption by the system*, for that is exactly what digestion means, and now the process of absorption begins in the small intestine. Through the agency of small cells and protuberances on the inner lining of the

small intestine, known respectively as *epithelial cells* and *villi*, the nutrient elements of the digested food substances are absorbed, whilst the residue is moved on by means of peristaltic action into the *large intestine*.

The processes of digestion and absorption are finally completed in the large intestine and the unabsorbed residue is evacuated from the body through the *rectum* and is known as the *faeces*. It contains all the undigested and unabsorbed parts of the food, excess fats not required by the body, broken-down cells and tissues, dead bacteria, inorganic salts, and the residue of the digestive juices.

THE PROCESS OF ASSIMILATION

The process of digestion is performed in the alimentary canal by the action of the saliva, gastric juices, bile, pancreatic fluid, and *succus entericus* on the foods. The method by which the nutritional elements thus obtained are taken into the system by means of the epithelial cells and villi is known as absorption, whilst the final process by means of which these absorbed elements are carried to all parts of the body by way of the *blood stream* and *lymphatic system* and thus utilised by the cells, is known as *assimilation*.

Absorption takes place practically entirely in the small intestine through the agency of the epithelial cells and the villi in the internal mucous lining. The elements taken up by the former enter the bloodstream direct through the agency of the blood capillaries with which the epithelial cells are connected, but the elements taken up by the villi enter the lymphatic system first and then the blood stream later. When the nutritional elements from both these sources at length reach the cells of the body, which is their ultimate destination, the process of *assimilation* begins; this is the culmination of

the whole series of movements set in motion by the introduction of food into the mouth, and here finally, through the process of metabolism (to be explained in the next chapter) the essential purpose and function of food as a supplier of the elements required by the body for its growth, maintenance, repair, and efficient functioning, is carried to its physiological conclusion and destined end.

CHAPTER II

HOW THE BODY WORKS

THE CELL

Although the various structures and fluids of the body are different superficially, in reality they are all constructed from the *same basic unit*, namely, *the cell*, and the process by which the cell utilises the nutritional elements brought to it by the blood stream as a result of the digestion and absorption of food, and is thus enabled to carry on its work, is known as *metabolism*. *It is by means of this metabolic process that the food we eat is transformed into living tissue or otherwise utilised for the work of the body.*

At the same time as the cell selects the material it requires for its work and efficient functioning from the food elements brought to it by the blood stream, it throws off the débris and waste products accumulated as a result of its past activity, as part of a structure or organ of the body; and it is around this unceasing chemical activity of the cell in building into itself the food elements which it needs, whilst at the same time ridding itself of the débris of former cell functioning (which is carried away to the blood and lymph) that the whole question of *scientific dietetics* revolves, as will now appear.

The chemical elements of which the cells of the body are composed are about sixteen in number, the most important being oxygen, hydrogen, carbon, nitrogen, calcium, phos-

phorus, and sulphur; and it is according to the predominance of one or more of these elements in its composition that the cell is enabled to take its part as one of an infinitude of similar cells which go to make up the various structures and fluids of the body, familiar to us as the skin, flesh or muscle, fat, bones, teeth, hair, nails, blood, lymph, blood vessels, nerves, brain, internal organs, etc.

These chemical elements are required to be continually introduced into the body for the growth, maintenance, repair, and efficient functioning of the cells, and it is by means of the process of digestion, absorption, and assimilation, described in the last chapter, that the food we eat is broken down, the elements in question extracted from it, and carried to the cells, and the work of metabolism allowed to be carried on.

This fundamental relationship between the *food we eat* and the *efficient functioning of the cells of the body* having been thus established from purely physiological consideration, what are we to think of the idea current in medical circles to-day, and shared by the general public, to the effect that *it does not matter what we eat*.

If the cell depends for its existence and efficiency upon the various elements carried to it by the blood stream, after the processes of digestion and absorption of food have been carried out, is it not obvious that, if some of the necessary elements in question are lacking from the food itself, the cell cannot maintain itself at the proper level? Must it not follow that loss of functional ability will be the result? And will this not lead eventually to complete atrophy and death of the cell?

FOOD AND DISEASE

It does not require much imagination to realise that once the cells of an organ begin to atrophy and decay, the work

of that organ will be seriously interfered with, and the health of the body necessarily impaired; yet, in spite of all this, the medical mind refuses to grasp this fundamental relationship between the food we eat, the materials thus supplied to the cells, and the health or disease of the body!

Further, in addition to the elements *directly* necessary for growth, maintenance, and repair, the cell requires for its efficient functioning a certain quantity of potassium, calcium, sodium, magnesium, and other alkaline mineral salts, to be supplied to it *continuously* by the blood for the purpose of neutralising the waste materials which are formed as the by-products of body metabolism, and are always acid in character. Every cell throws off acid waste product as the débris and residue of its chemical activity; and unless the acid materials in question are properly neutralised by the alkaline mineral salts in the cell, in the presence of water and free oxygen, and the neutralised product carried away by the blood and lymph, an ever-increasing quantity of acid waste matter will be steadily accumulated in the cell tissue. This in turn will eventually lead to an interference with the vital metabolic processes throughout the body, consequent upon the clogging of these minute wheels in the human machine.

The reader will now understand why it has been necessary thus far to make him or her more or less unwillingly acquainted with the physiological processes dealing with the ingestion of food and cell metabolism, for only in this way could this essential and fundamental relationship between the food we eat and the health or disease of our bodies be made clear.

He or she will now understand what the real underlying causes of disease are; for consider—if *all* the elements necessary for the growth, maintenance and repair of the cell are not provided by the food we eat, must not deficiency diseases

such as rickets, anaemia, and tuberculosis be the result? And further, if all the principal bodily elements *are* present in the food we eat, but not sufficient quantities of the alkaline mineral salts so necessary for the neutralisation of cell waste—or in other words if our food is *demineralised*—must not acid waste matter accumulate in all parts of the body in time and become a menace to the efficiency and health of the organism?

But these two potential causes of disease pale into insignificance before the third and greatest of these underminers of the health of the body—*the consumption of food materials far in excess of bodily requirements*. For the excess materials thus supplied to the cells, not being required for their use, become so much waste matter and rubbish, and have to be got rid of at all costs by the system, to allow of the efficient functioning of all its parts. If this ingestion of food materials far in excess of bodily requirements goes on, day after day, year after year, as is the case to-day all over the civilised world, with regard to *starchy, sugary, fatty, and protein* foods, the waste of effort and energy on the part of a thus overloaded organism to rid itself of this burden of excess food materials must be apparent to all, and the impaired and lowered vitality so evident on all sides to-day will no longer be a mystery.

DISEASE—NATURE'S SELF-CLEANSING EFFORT

How does the system throw off, or rid itself of, these excesses and, in most cases, demineralised food materials not required for its work, but nevertheless persistently forced upon it by a food-ignorant owner, in the belief so common to all, that *all food is good food and the more we have of it the better*?

These excess food materials are broken down in the cells into acid waste products similar in kind to the waste residue and débris of ordinary cell metabolism, and as the quantities

of alkaline mineral salts required for their neutralisation and elimination are never supplied in the requisite amounts by the demineralised and refined foods of to-day, and their presence is a continual hindrance and burden to the organism, the body periodically and systematically cleanses itself by ejecting this ever-present mass of acid waste material through the medium of the mucous membranes of the nose and throat and other parts of the body, in the form of catarrh, coughs, and cold; or through the skin, in the form of eruptions, fevers, etc. (The reader will now understand the reason for the prevalence of these conditions in the overfed world of to-day.) But if the body's attempts to thus rid itself of its imposed burden are continually thwarted by the suppressive methods of treatment in vogue at the present time, the waste materials in question—which, as has been explained, are always acid in character—are thrown back into the tissues and find lodgment in the inner parts of the body, around the joints and nerve sheaths, with the result that uric-acid diseases appear, such as rheumatism, gout, arthritis, lumbago, neuritis, and sciatica; or else they accumulate in the lungs or other vital organs, such as the heart, liver, kidneys, spinal cord, brain, etc., and thus pave the way for the whole melancholy catalogue of diseases, from bronchitis and heart-disease down to cancer and paralysis.

It is *not* here claimed that *all* disease in every case is *entirely* due to the retention in the system of waste products and cell débris, as the result of impaired bodily functioning and faulty metabolism due to an inefficient, excessive, demineralised, or faulty diet. There are other factors which play their part, such as enervation and nervous exhaustion (due to excesses of all kinds, overwork, worry, temperamental and environmental difficulties, etc.), mechanical interferences

with blood and nerve supply, injuries, shock, etc., but it is claimed that without the basis of bodily refuse supplied by the accumulation of the acid by-products of impaired and imperfect cell-metabolism in the system, due to subsistence upon the *demineralised, much too over-abundant, excessively concentrated, badly prepared and unbalanced* diet so common at the present time, *disease as we know it to-day would be impossible!*

WHAT OF THE GERM THEORY?

The reader will no doubt by this time be seething with suppressed excitement and feel like blurting out: "But what about the germ theory? Surely disease is due to the presence in the system of germs and microbes, isn't it? Doesn't disease enter the body from outside and must it not be fought against and expelled?"

In reply to these very pertinent questions it may be stated briefly that no germ or microbe can develop in a body that is absolutely clean and wholesome *inside*. As a matter of fact, the self-same germs and microbes so much anathematised to-day by the medical profession as the cause of all our ills and ailments, are Nature's tiny scavengers sent to rid the human body of the refuse it has collected through years of wrong habits of living, and which it is unable to remove for itself, thanks to the unnatural treatment meted out to it by civilised society with its habits of drugging and goading and unwilling system along paths unnatural to it.

Just as flies are Nature's agents for removing filth and dirt *outside the body*, so germs and microbes perform the same function *inside* the body. This may ring strangely in the ears of some readers, but it is none the less the case, and if, instead of excitedly shouting "Kill that fly!" people saw to it that flies had no filth to live on, then flies would automatically

cease to exist—Nature would have no further need for them!

In the same way if, instead of raising the cry "Kill that germ!" the medical profession were to centre its attention upon ridding the body of the waste matter and internal filth it has accumulated through years of wrong habits of living, then *the root and basis of disease* would be once and for all removed, and the germs and microbes automatically disappear. The work of Nature would have been accomplished without their somewhat painful and alarming aid!

Having now realised the real *basis, cause, and reason* for diseases in the body, the reader cannot fail to understand the futility of attempting to deal with diseased conditions by the administration of drugs, sera, vaccines, and the like, or by trying to prevent disease by means of inoculation, instead of ridding the diseased body of the basic cause of its trouble, namely, the acid waste products of impaired metabolism, due to wrong feeding; yet these are the methods employed universally to-day by orthodox medical men!

Is there any wonder that chronic disease is on the increase, and causing more and more anxiety to those responsible for the welfare of society?

ELIMINATION

Continuing our description of how the body works, in addition to the elements necessary for growth, maintenance, and repair, it should be said that the cell depends for its efficient functioning not only upon the alkaline mineral salts already referred to, but upon the presence of a certain quantity of water and free oxygen.

All but the latter are supplied to the cell through the agency of food (drink being regarded as food). The oxygen is introduced into the system through the medium of the lungs

during the process known as breathing, and is then carried to the cell by the blood stream.

It has been stated that as a natural result of healthy cell metabolism (not to be confused with the result of unwise food habits), acid waste products are formed which are neutralised by the alkaline mineral salts in the cell, in the presence of water and oxygen, and the neutralised product carried away by the blood and lymph. The process by which these neutralised products are finally ejected from the system is known as elimination, and is carried out through four distinct channels, viz. :—

The lungs, which eliminate the carbon-dioxide formed when the free oxygen carried by the blood is burned up in the cell during its work.

The skin, which throws off in the form of perspiration some of the waste by-products collected from the cells by the blood and lymph.

The kidneys, which eliminate the major portion of cell waste known as *urea* in solution in water—*urine*.

The bowels, which are accessory helpers in the work of ridding the body of toxins and waste products.

It will be seen therefore that proper elimination is as essential to health as proper food, since acid waste products *must* arise from the work of the cell—quite apart from the accumulation of waste material due to the ingestion of demineralised and over-abundant food products—so that even when these residual materials *are* completely neutralised by the alkaline mineral salts present in the cell, the product of this neutralisation *still has to be removed from the system*.

This accounts for the stress laid by all health culturists upon deep breathing exercises, for the purpose of promoting good skin action and internal oxidation, and the necessity

for proper movements of the bowel.

If one is living upon the usual clogging and unscientific diet of to-day, and thus continually building up stores of acid waste materials, the need for active elimination through all the channels indicated is obvious. Yet in the majority of such cases these channels are usually blocked or only working at half-strength as a result of the enervating and unhygienic methods of living in vogue amongst the vast majority of civilised people at the present time. Breathing is bad, skin action is poor, and, of course, constipation is the rule rather than the exception ; so that as a direct consequence of the blocking of these natural channels of elimination, the average civilised present-day individual finds himself, or herself, as the case may be, going round and round in a vicious circle owing to unwise food habits and faulty elimination.

Poor elimination means therefore unsound health and lowered vitality ; the person in question becomes a constant prey to coughs and colds, and falls a ready victim to any disease (such as influenza) which may be about at any time.

To attempt to extricate these unfortunate ones from their sorry plight by administering drugs, or by advising them to use laxatives and purges, without going right down to the root causes of their trouble, is only another glaring example of the inadequacies and follies of orthodox medical science !

Constipation (it may be noted in conclusion) is in itself a sure indication that all is not well within the body, and that the internal processes are out of balance—so that its prevalence to-day throughout civilisation is an unspoken yet remarkable indictment from Nature herself of modern habits of living.

CHAPTER III

OUR DAILY FOOD

From the description given in the preceding chapters regarding the physiological processes which regulate the ingestion (or taking in) of food into the body, and the details of cell metabolism, it is clear that unless the food we eat satisfies *all* the demands made upon it by the body, it is not food in the real sense of the word. Food to be *really* food, and not just "something to eat," must be easily digested, absorbed, and assimilated, and must contain some at least of the elements necessary for the cell to enable it to carry out its allotted task.

FOOD GROUPS

These essential elements which food is called upon to supply to the body can be divided into five groups, viz.:—

- (1) The materials actually necessary for cell growth, maintenance, and repair.
- (2) The materials necessary to protect the cell in its work.
- (3) The materials necessary for cell functioning.
- (4) Mineral salts for neutralising acid waste products.
- (5) Water.

All natural food substances contain with themselves most or all of these five essentials to bodily health and vigour, and they are classified accordingly as one or other of them predominates in its composition, thus :—

Foods containing a large amount of body-building ele-

ments, that is, those which supply the requirements of group 1, are called *protein* foods.

Those which come mainly under the heading of group 2 are the *hydrocarbons* or *fats and oils*—the body-warmers and protectors.

Those which come under the heading of group 3 are called *carbohydrate foods*, or suppliers of fuel or energising materials to the cell.

The mineral salts which comprise group 4 of the elements essential to the body, and are therefore required from the food we eat, are found in abundance in all food substances, no matter to which group they belong, in the *uncooked or natural state*; but most of all in *fresh fruits and raw vegetables*. (When food is cooked the mineral salts are evaporated, or left behind in the water the food has been boiled in; the result is that these essentials to human health, as revealed by our study of the work they perform in neutralising and eliminating waste materials, are wasted or poured down the drain, instead of being used for the purpose Nature intended.) Because of the large quantities of the mineral salts they contain, in a form most suitable to the needs of the system, fruits and vegetables comprise the fourth group of food elements known as the *purifying foods*—a name which readily suggests their use.

Water, which is group 5, makes up a large percentage of every food substance—as a matter of fact the human body is more than two-thirds water—the necessity for its presence therefore in the food we eat is obvious. When food is cooked, most of the water it contains is driven off by evaporation, so that the bodily need for water has to be supplanted by drinking tap water, which is not nearly so good as the water in the *non-mineral* form, found in all natural, uncooked foods.

The main food groups are therefore:—

- (1) *Proteins.*
- (2) *Fats and Oils.*
- (3) *Carbohydrates*, divisible into
 1. *Sugars.*
 2. *Starches.* (Starches are converted into sugar during the process of bodily digestion.)
- (4) *Purifying Foods.*
- (5) *Water.*

The principal foods in each group are:—

- (1) *Protein Foods.*

Animal: Lean meat, fish, eggs, cheese, milk.
Vegetable: Nuts, beans, peas, lentils.
- (2) *Fats and Oils.*

Animal: Fat meat, butter, cream, lard.
Vegetable: Nuts, olive oil, almond oil, coconut oil, etc.
- (3) *Carbohydrates.*
 - (1) *Sugars:* Honey, cane sugar, beet sugar, Demerara sugar, dried fruits.
 - (2) *Starches:*
 - (a) *Cereals*—wheat, maize, rye, oats, barley, rice, etc.
 - (b) *Vegetables*—peas, beans, lentils, potatoes, bananas.
- (4) *Purifying Foods.*
 - (1) *Fruits:*
 - (a) *Acid Fruits*—pineapple, lemon, orange, grapefruit, all berries, such as strawberries, raspberries, etc., rhubarb (really an acid vegetable) and tomatoes.

(b) *Sub-acid and Sweet Fruits*—apples, pears, peaches, apricots, grapes, cherries, plums, figs, etc.

(2) *Vegetables*: Cabbage, lettuce, spinach, sprouts, onions, leeks, carrots, turnips, broccoli, kale, cauliflower, green peas, asparagus, runner beans, cucumber, celery etc.

(5) *Water*.

Non-Mineral in all the above groups.

Mineral in the usual form.

FOOD AND CIVILISATION

It will be seen from the above list that the foods required by the body for its health and activity are actually the foods commonly in use in every-day life, for man has long ago discovered which foods are good for him, and necessary for the maintenance of human life. But whereas in the dim, distant past, when man was much more akin in simplicity of spirit and nature to his fellow members of the animal kingdom, his instincts told him naturally and unhesitatingly, *what to eat, when to eat, and how to eat*, thanks to the gradual and unnoticed influence upon him of "civilisation and progress," this natural relationship that existed between man and his food has become perverted and lost.

We therefore find to-day, in place of this natural instinctive understanding of *what to eat, when to eat, and how much to eat*, common to his remote ancestors, as it is also to all the other members of the animal kingdom, man now depends for his guidance in these matters upon the decrees and dictates of custom, tradition, and habit. *These tell man what to eat, not his real instincts*; for example, if one is an Englishman one

has for breakfast porridge and bacon and eggs; but if one is a Frenchman, one has coffee and rolls; perhaps if one were a Chinaman he would breakfast on a bowl of chop-suey or some edible birds'-nests, who knows?

Now what relationship do meals such as these bear to the direct needs of the body? None whatever! All that one knows is that they are food, food decreed by custom or tradition, and become habitual; but as to whether the body really requires them or not—that consideration is deemed unworthy of serious attention, if ever thought of at all!

Further, instead of eating being looked upon as a natural, simple bodily function, similar in kind to breathing and sleeping, it has come to be regarded as one of the means of gratifying man's craving and desire for enjoyment and pleasure; *it has become an end in itself, not a means to a natural end*—namely, the supplying of the body with the materials it needs for its healthy and efficient functioning—and the result is therefore chaos and confusion!

That is why we are faced with all the present-day anomalies with regard to food and eating. People no longer know *why they eat, what to eat, when to eat, or how much to eat*; their tastes have become so perverted that they turn from natural, unspoilt foods, and demand instead highly spiced and flavoured dishes. Their depraved and perverted palates are considered first always, and not the direct needs of their bodies. And so we find on all sides foods being refined, processed, bleached, and demineralised (to make them appear pleasing to the eye and palate, forsooth,) foods being preserved (embalmed), potted, tinned, smoked, dried, chemically treated, and touched up, to suit the ends and pockets of food purveyors and manufacturers (as if real food can be manufactured!) and food being eaten in quantities, pro-

portions, and at times which have no relationship whatever to the needs and natural requirements of the body.

“OUR DAILY FOOD”

Our daily food, instead of being the fruits, vegetables, and flesh foods of the earth, in all their natural unspoilt simplicity, is presented to us by the food purveyor and manufacturer for our consumption, after being subjected to all kinds of processes and methods of preparation, which, incidentally, deprive it of most or all of its natural mineral properties (the need for which has been fully explained to the reader). It is offered to us in packets, boxes, tins, and what not, or else, as in the case of meat, fish, milk, eggs, butter, etc., refrigerated, adulterated, chemically treated, and generally touched up to prevent it decaying or deteriorating before it is off the hands of the shopkeeper, especially in the poorer districts. In addition, all sorts of artificial foodstuffs are prepared and sold which are quite unsuited to the needs of the body, and, indeed, in many cases, directly harmful to it if large quantities are consumed, such as confectionery, pastries, jams, preserves, ice cream, mineral waters, alcoholic drinks, etc.; whilst sauces and relishes are introduced to supply a much-needed “kick” to the products of modern cooking, or to give a fillip to jaded, over-indulged appetites.

Fruits and vegetables, instead of being given their rightful place in the human dietary as intended by Nature, as the purifiers of the body, are relegated to the position of “filling up the cracks and crevices” left after the consumption of the depraved, devitalised, and demineralised products of commercialism; and starchy, sugary, protein, and fatty foods are eaten in quantities out of all proportion to the needs of the body! Thus we carry on, and with what result? Ill-health

and disease sown broadcast throughout the world through the violation of the formerly existing relationship between the simple, unspoilt natural foods proper to man and the health of his body, brought about as a result of the unnatural influences of civilisation.

“OVER-EATING”—THE BIG TROUBLE TO-DAY

Of all the food follies and crimes committed in ignorance by man to-day, however, that of *over-eating* is by far the greatest, and the most prolific cause of disease. The amount of protein food alone that is consumed daily by the average Englishman is at least *four times as much* as the body requires (it must be remembered that protein foods are meat, fish, milk, cheese, eggs, etc.), so that the accumulation of acid waste products resultant upon this swamping of the system with those excessively rich food materials *must* lead to a clogging of the cell processes as explained in the preceding chapter, and therefore to a direct interference with the whole function of metabolism.

The work of the body is thus not only interfered with, but its whole energy has to be expended upon the one object of ridding itself of this burden of waste matter. When it is considered further that the excessive consumption of protein foods goes on day after day, year after year, throughout life, it is easy to see that the contention of the Naturopath that wrong feeding is the physical basis of disease is well founded.

As with protein foods, so it is with carbohydrates; the amount of sugary and starchy foods consumed daily by the people of this country is far in excess of the requirements of the body. Very little sugar and starch is needed to supply the system with the elements it requires for fuel and energising

purposes, yet consider the amount of starchy food alone (to say nothing of sugar in the form of cube sugar, jams, marmalades, confectionery, and in cakes, pastries, etc.) that is eaten by the average individual each day!

To begin with, bread is taken at every meal, and then there are potatoes once or twice a day, in addition to prepared breakfast foods, porridge, rice, barley, and other cereal foods, milk puddings, biscuits, cakes, pastries, puddings, and pies—all of them starchy! Why, is it not evident that the body is being continually forced to deal with this ever-present and pressing problem of what to do with the excess starch and sugar forced upon it by a misguided owner, instead of being able to carry on with its own affairs?

Remember that the excess protein materials already referred to as resulting from the ingestion of two, three, or sometimes even four meat meals a day—to say nothing of fish, cheese, eggs, and milk—have to be dealt with at the same time as the equally excessive consumption of starchy and sugary foods, not to mention the likewise excessive ingestion of fats. Is there any need for wonder that in attempting to protect an overworked system from the harmful effects of such overwhelming accumulations of excess food materials, the body has to resort to those painful and frightening manifestations of internal cleansing-activity looked upon as DISEASE?

WHAT IS THE REMEDY?

After what the reader now knows of the “modern” attitude to the food we eat, and its effects for good or evil upon the body, can he or she any longer be surprised that chronic disease is more in evidence to-day than at any previous period in the world’s history, despite all that science and medical skill can do? Is it to be expected that a healthy

society can be reared on such a chaotic, confused, and unnatural basis as that supplied by the food and food habits of civilisation to-day?

What, then, is the remedy?

The remedy is simple; it is to inculcate again into the minds of men the knowledge which their ancestors once possessed instinctively, but which, thanks to the artificialities and changing conditions imposed upon him by civilisation in its "victorious onward march," man has allowed to be overlaid, perverted, or completely lost to him. *Man must again learn why he eats, what to eat, when to eat, and how much of each food to eat*, in accordance with the needs and requirements of his body, but *intellectually and consciously, not instinctively* as in the past; as it is impossible to recreate instinctive feelings and promptings in a body so far removed from things natural as that of civilised man. That can only be done after years of simple, natural living in closer contact with Nature than that provided generally by present-day life.

When people realise that the function of food is to supply the natural needs and requirements of the body, and *not* to pander to their perverted tastes and appetites; that natural, simple, unspoilt foods—"PURE FOODS"—are the foods they should eat, not the commercialised products of to-day; that only very definite and limited quantities of starchy, sugary, protein, and fatty foods are required daily by the system for its work; that fresh fruits and green vegetables are *essential* in much larger quantities than at present in use if health is to be maintained, or, as it is in most cases, if health is to be regained; then, and then only, will the benefit that is to be derived from food be obtained, and the health and efficiency of the body kept at the highest level.

CHAPTER IV

HOW THE NATION'S FOOD IS DEBASED

MODERN FOOD-BUSINESS METHODS

By this time the reader will have realised that the first requirement of all food is that it should be *pure*, and that it should contain all the mineral and life-sustaining elements proper to it in its natural state. It will then be proper, at this juncture, to turn our attention to the methods by which, in the commercialised world of to-day, food materials are brought from all corners of the globe, to supply the demands of our gigantic and ever-increasing town and country populations; we shall see how, incidentally, in the process they are robbed of all, or nearly all, of the life-giving properties which are Nature's gift to man, and without which real health cannot be efficiently maintained.

How many people are aware of this debasing of the Nation's food supply which goes on daily under our eyes to suit the ends of Trade and Commercialism? How many know that food is devitalised, degerminated, demineralised, bleached, chemically treated, robbed of its life-giving mineral properties, preserved and adulterated generally, without any regard being paid to its resultant effects upon the men, women, and children of the country?

Although the foods in use to-day are very much the same as those of a hundred years ago, a great change has taken place in the manner in which they are prepared and placed before

the consumer; a change entirely due to the influence brought to bear upon the food of the Nation by Trade and Commercialism generally. For the Nation's food supply has imperceptibly and almost without notice come into the hands of business men and food speculators, and as a result, the question asked by the food purveyor of to-day is not "What is best for the people?" but "What is best for myself?"

This does not mean to say that the business man who obtains his money by selling or preparing food commodities is any worse than the business man who derives his income from the sale of clothes, boots, or anything else; but the point to realise is that whereas in the case of clothing or boots, if they are badly made as the result of modern get-rich-quick methods, we should simply have to spend more on these articles in the long run than we should like to, in the case of food it means that *the health of our bodies is to a large extent dependent upon the kind of food manufacturers prepare or provide for our consumption*—a much more important matter!

It is therefore of the utmost importance that everyone should have some idea of the methods employed by modern food purveyors and manufacturers who supply the community with the articles of food it requires for its subsistence, and to this end nothing more startling and illuminating has been written than the book entitled *The Science of Eating*, by Alfred McCann, published in New York in 1919.

ALFRED MCCANN

Mr. McCann began his career as a food chemist, and later became the Advertising Manager of a Food Concern with a turnover of 12,000,000 dollars a year. He soon found out that food advertisements were intended *not* for the purpose of enlightening the public on questions as to what was really

good for them to eat, but were printed with the sole object of getting the public to buy the goods the company in question were selling, without regard to their fitness for food or otherwise; and he declares that "the chief function of the Advertising Manager is not to educate the masses, but to popularise the product he is paid to exploit." (Let the reader bear this in mind the next time he or she looks at a food advertisement !)

Becoming dissatisfied with this state of affairs, McCann received the support of the New York newspaper, *The Globe*, and, equipped with a laboratory, he set to work to investigate the methods employed in the manufacture of food commodities by the leading American firms; and the result he obtained, which were of the most startling nature, were published in forty-one newspapers in as many cities in the United States.

So heavy, however, was the pressure applied by advertising agencies, that the publishers of all these papers, with the exception of *The Chicago Daily News*, found themselves compelled to discontinue his exposures; and in this respect the photographs of original documents in Mr. McCann's possession, showing how truth is suppressed in daily journals, weekly periodicals, and monthly magazines, are a fitting justification for a Government enquiry into the silent influences at work to muzzle the Press and prevent the public knowing the truth about the food it eats !

During Mr. McCann's service on *The Globe* he was made Deputy Health Commissioner by five Municipalities, and was employed by as many Mayors and Police Commissioners to make surveys of the food conditions obtaining in the communities represented by them ; and he has led squads of plain-clothes men upon raids that have resulted in scores of

indictments, trials, and convictions in municipal, state, and federal district courts.

On numerous occasions he has been tried on charges of criminal libel, brought by some of the leading American Food Companies against him, but on *every occasion* he has emerged the victor, and in all he has initiated 206 prosecutions of food adulterators, and has *never lost a case*!

As a result of his vast experience Mr. McCann no longer looks to commercial publicity or legislation as a means through which to bring about food reform, and it is his belief that the work *must be done in the schools*; that the children must be taught the meaning of "depraved foods"; that they must learn how foods are processed, bleached, coloured, sifted, bolted, denatured, degerminated, demineralised, chemically treated and refined; that they must be taught the relationship of "foodless food" to death; that they must be taught the *relationship of natural food to health and life*!

He holds that the true conditions now so completely hidden from the public view and so rarely referred to in the public Press must be exposed, in order that the public, guided by the dictates of common-sense, may *successfully wage war against abuse which threatens the very foundation of health and prosperity*.

It is for this purpose that his book was written, and the following extracts taken from it will serve to show the reader dramatically, and conclusively, the manner in which the food supply of the civilised world is "juggled" with to suit the ends of business men who care about nothing except the filling of their own pockets:—

HOW FOOD IS DEPRAVED

"....We must first learn that the greatest temptation to

juggle with food products is inspired by the people themselves. The subject of insufficient wages or industrial injustice is not going to creep into this discussion, but, in passing, it must be said that in scanty incomes is frequently born the false standard of judgment which attributes an artificial value to 'bulk,' overlooking substance and quality.

Competition, when based on quality of product and honesty of workmanship, is the very life of trade decency, but in foolish and desperate competition which inspires fraud, false standards are imposed in all their evil influence upon society.

When the size and price satisfy the individual, few questions are asked. Most people are prone to accept even the shape of the package or its colour as evidence that its contents are all they ought to be. No questions are asked as to whether they support life or slowly, insidiously, stealthily burrow under the foundation of the living temple to destroy it.

To gain a trade advantage over a competitor, the food manufacturer makes his strongest appeal to the eye. Thus he begins the work of puffing, bulking, filling, extending. Then follows the trick of conferring upon the bulk product the shadow of honesty which masks it against discovery.

At this point deception is braced with added flavour manufactured in the laboratory. The 'innocent' and 'harmless' mass is then kept from disintegrating by the use of legalised preservatives—Food is embalmed!

In addition to the filler evil, the artificial colour evil, the flavour evil, and the preservative evil, there is a fifth, a still more insidious evil, responsible for tenfold, yea, a hundredfold, more miseries than all the other evils combined.

The filler evil is now regarded as a crime by all State

Departments of Agriculture where poultry food, cattle food, or fertiliser is concerned. The Federal Government also recognised the filler evil when an attempt is made to ship a 'sophisticated' food from one State to another, unless the manufacturer leaves in the form of small print upon the label, some inconspicuous tell-tale evidence behind.

Foods consumed in the State in which they are manufactured (not passing into any other State), need not declare their tell-tale evidence except in a few communities where an alert Commissioner is active.

The experimental stations of nearly every State in the Union have discussed the enormity of adulterating cow-food and earth-food. These abuses have been followed occasionally by successful prosecutions never heard of by plain people, although they are based on no other ground than the evil so complacently tolerated in the preparation of human food.

Cattle-food and fertilisers are considered by the State and Federal Government of more importance than human food! (The reasons behind this inconsistency will be revealed in their proper place.)

Doctor Harvey W. Wiley's first work, back in 1882, was the ejection of worthless fillers from the earth-food fertilisers sold to farmers for replenishing their soil with the food elements consumed by last year's crop, that there might be no crop failure the following year. Commercial cow-food loaded with inert and foodless substances was found, like commercial earth-food, to fail utterly in the work it was intended to accomplish. *Now after 37 years of literally astonishing experiments with soil, plants and animals, and with an almost thorough knowledge of the cause of soil starvation and the cause of animal disease the human family still persists in ignoring the meaning of 'pure food' for its children!*

Those who manufacture 'foodless foods' for human beings tell us we have no constitutional right to interfere with their industries. *Education of the masses, however, will bring about this necessary reform.* It can be brought about in no other way....."

"DENATURED" FOODS AND INFANT MORTALITY

With regard to the growing modern habit of refining foods so as to prevent decomposition and make them pleasing to the eye, whilst at the same time removing from them nearly all the valuable mineral salts they possess in the process (white bread, white flour, polished rice, pearl barley, cube sugar, are all examples of natural foods which have been robbed of their valuable health-giving properties by modern commerical methods, and thus demineralised, denatured, and generally debased) and its relationship to the infant mortality of civilisation, McCann says:—

"....Animals, human or dumb brutes, die when their food is debased, but the very number of such foods makes it impossible for an individual to go before a grand jury with the charge—'This food killed my little girl.'

For months, perhaps for years, one juggled food brought substances to her diet which her little body could not use. Her vitality in throwing off the excess baggage was slowly sapped. She was not poisoned by any particular food, a combination of inadequate foods merely robbed her tissues of their tone. Another food from another source had been processed in a manner that removed some or all of its most indispensable elements. In its refinement it withheld from her little frame the very materials she required for growth, materials that God had elaborated for her, but which unnatural practices had withdrawn from her reach, on the vain assump-

tion that it is not necessary to credit the Creator with a profoundly conceived and marvellously executed scheme of biochemical balances and harmonies.

Persistently, month after month, the disordered combination of artificial foods sallied to the dinner table, where all the forces of outraged Nature were called into battle with the unseen enemy of Health and Life. Commercial expediency looked on as the fight was waged with Nature. But Nature had been equipped with poor fighting materials, and the child's resistance, broken at last by the combined attack of unsuspected enemies, fumbled, snapped, and was gone.

There is no pathologist, no public prosecutor, no father, no mother, who can accuse the food industry of her death. Let this be fully understood.....”

OUR CHEMICALISED FOODS

The reader must by this time have grasped the bearing of these modern methods of dealing with foods upon the health of his body and his wife's and children's. They are methods which ruthlessly and completely remove the mineral salts and other essential elements natural to it from our daily food; not only so, they introduce instead chemicals and preservatives for colouring and preserving purposes, thus depriving the body of the elements essential to growth and health, and forcing it to deal instead as best it can with these harmful and deleterious adjuncts to modern food manufacture. In any case, however, the following extract from the same book will help still further to place this matter in its true light.

McCann says:—

“....Food manufacturers declare their chemical preservatives are ‘harmless.’ Scientists are found who agree with

them. Thus they set up arguments of such plausible and convincing character, that the Government has been prevailed upon to permit them to employ chemicals in the manufacture of 100 *food products*.

Some dozen drugs can now be legally put into food intended for inter-State commerce, and another dozen are permitted by various State Governments in the manufacture of foods not intended for inter-State commerce.

At least twelve necessary mineral elements can be legally taken out of food intended for inter-State commerce.

Thus the manufacturer is permitted to add to Nature's formula or subtract from it at will, depending entirely upon what he considers necessary in obtaining the commercial results desired.

The 400,000 children under ten years of age who died last year loved their 'innocent' cakes, cookies, crackers, and biscuits, their 'innocent' white bread, smeared with syrup and factory jam; their 'innocent,' gorgeously coloured candies.

We smile at the very thought of the farmer mixing with his carefully and scientifically prepared food the red, blue, green, yellow, brown, and purple ribbon dyes of the coal-tar family which the law permits the manufacturer of food intended for human consumption to use.

We smile at the thought of his adding to his cattle-food borax, sulphurous acid, saccharine, sodium benzoate, copper sulphate, aluminium sulphate, anhydrous sodium sulphite, butyric ether, amyl ether, *œnanthus* ether, ethyl ether, valerianate ether, formic ether, benzole ether, acetic ether, esters, aldehydes, coumarin, vanillin, pyroligneus acid, soap bark, furniture glue, lamp black, shellac, gum benzolin, paraffin, stearic acid, hydrogenated fats, hydrolysed starch, and other foodless substances so frequently mixed with the food of the

growing child and the nursing mother. All these substances at this hour are in use in the United States; with the exception of borax and copper sulphate *they are all legal.*

Little pigs are tenderly cared for; the young colt, the baby calf, the wee chicks, are watched with a solicitous eye. Caution, vigilance, common-sense, scientific knowledge, are exercised to produce stock that will yield a profit. In consequence, *when money is invested in animals they are fed on a diet carefully arranged*, and their young do not die untimely deaths when their food is of a proper kind.

But human being! That is another matter. The law says, 'You shall not consume carbolic acid, arsenic, opium, cocaine, morphine, or heroin, nor shall you purchase them under any circumstances whatsoever unless the law's restrictions are removed by trained and licensed physicians.' The law also says in substance, 'The food of your children may be whatsoever the food manufacturer sees fit to sell you.'"

THE "FOODLESS" FOOD OF CIVILISATION

The foregoing are indeed terrible indictments of modern food-business methods brought, be it noted, by a man who has given his whole life to the study of food chemistry, and substantiated by him again and again in American Courts of Law. And let it be understood that they apply in the main to most of the packages, boxes, tins, jars, bottles and cases of food commodities sold in the grocery stores throughout the length and breadth of *this country*, as well as America. For although certain Acts have been passed in England during recent years limiting the degree to which preservatives can be used in food commodities during the process of their preparation by the food manufacturer, not one word has been uttered by those in authority against the universal practice of *refining, deminer-*

alising, and generally juggling with food. Thus practically all that McCann has said as to what goes on in the American food-business world, applies with equal force to the food practices in vogue in this country also. "Denatured" food products are the order of the day here, as there, with their consequential deleterious effects upon the health of society. Yet doctors still persist in telling us "To EAT WHAT WE LIKE" and make more desperate efforts than ever to discover and destroy the germs and microbes that are supposed to be the "cause" of disease!

In addition to the enormities just referred to, the bread of the Nation is rendered almost worthless by modern milling methods, the milk of the Nation is watered and tampered with as far as possible, the meat of the Nation is doctored to prevent it decomposing (especially in the poorer districts), and so the Nation's health is steadily and surely being undermined by men who are looked up to by the rest of the community as worthy citizens, and in some cases, indeed, as public benefactors, and rewarded with seats in the House of Lords!

Was ever such a state of affairs witnessed before in the muddled history of this globe?

The people's food is rendered almost worthless (it is debased before the public's very eyes), yet neither they nor their leaders and advisers say one word in protest against it!

It is only in primitive, out-of-the-way places, far removed from the influences of civilisation and get-rich-quick commercialism, that man still has to-day the foods intended for him by Nature in their simple, unspoilt form; and yet these very people are regarded by the rest of humanity—the civilised portion of it, that is—as barbarians and savages! Thus Civilisation with its adjuncts, Trade and Commercialism, makes fools of us all, and will continue to do so until man

comes to his senses at last, and realises the manner in which contact he is being thus forcibly and deliberately cut off from all with the natural, unspilt foods which are Nature's heritage for him, but which, thanks to the food methods in vogue to-day, he rarely obtains.

CHAPTER V

THE NEED FOR "PURE" FOOD

The meaning and message of the preceding chapter is plain ; it is this :—If you wish to obtain the maximum benefit from the food you eat—quite apart from the quantities in which it should be consumed, or the manner in which the various food materials should be combined in accordance with the physiological needs and requirements of the body —it must be *as pure, as natural, and as unspoilt* as it is possible to obtain.

If you want bread, for instance, then let it be *wholenwheat bread*, a bread containing *all* the wheat, not just pure starch, which is practically all that white bread consists of apart from a certain percentage of protein. Sir Frederick Cowland Hopkins, Department of Chemical Physiology, Cambridge University, has said:—“....The superior value of whole-wheat meal lies in the fact that it retains certain food substances whose presence allows our systems to make full use of the tissue-building elements of the grain. *These substances are removed from the fine white flour in the milling..... Yet white bread and white flour products still continue to be the rule rather than the exception!*”

The bread of our forefathers has been demineralised and debased by the miller and baker, without the slightest demur from the public who suffer as a direct consequence! *Let your bread, then, be wholenwheat bread, nothing less, if health is desired.*

Again, if you want butter—and you should have it—then let it be *dairy butter, real butter*; not the adulterated product *sold* as butter by the various multiple stores and shops all over the country. And let your cheese be *cheese, made from milk, not from soya beans*, as is much of the cheese sold to the public in the guise of "real Cheddar," "best English," etc.

Similarly, when buying meat, or fish, let it always be fresh, never smoked, or dried, or pickled, or tinned, or preserved (McCann's disclosures of what takes place in the American Canning Industries are little short of appalling). This is the only way to ensure getting the best out of the food you eat.

The same with regard to all the other articles that go to make up the daily dietary of the average individual of to-day; they must be as natural and unspoilt as it is possible to obtain them, if this first essential qualification of food is to be realised—namely, PURITY.

POPULAR CATERING—AND ITS EFFECT UPON THE HEALTH OF THE NATION

Having realised the difficulty of obtaining really pure food in this commercialised world of ours, and its absolute necessity if real health is to be maintained or regained, let us glance for a moment at the manner in which this wrecking of his system, commenced by the food manufacturer and food purveyor, is completed by the hotel keepers, restaurant proprietors, and multiple teashop owners who cater for the "inner" needs of man to-day, and whose establishments are considered to be fitting emblems and hall-marks of our present-day civilisation.

Let us consider first of all that modern monstrosity, the "delicatessen" or cooked-food store, and the quick-lunch

counter, where there is displayed to the eye a gorgeous and tempting array of doctored and prepared foods (most of them foodless) in the shape of meat pies, tinned and preserved meat and fish, pickled, smoked, and dried fish, variegated sausages, weird salads, whose principal ingredients are either vinegar or mayonnaise sauce, pickles, sauces, condiments of all kinds, and think of the appalling amount of harmful and injurious chemicals and utterly worthless materials one here takes into one's system in the guise of food! Yet these stores are universal in America to-day, and are becoming more and more popular in this country. They save cooking, we are told, and have become quite a feature in the entrance halls of some of the more popular West-end restaurants: those gilded halls of eating, where the unsuspecting British public with knife and fork daily dig premature graves for themselves, to the tune of the latest American jazz music.

Now let us turn our attention further to the food supplied to the public by the modern popular restaurant, and consider the so-called food which millions of workers in the City of London have to consume daily, and which is supplied to them by firms of world-wide reputation and renown. What is it? Sausages and mash; steak puddings and pies; fish cakes; veal and ham pies; all sorts of concocted dishes whose principal ingredients seem to be mashed potatoes and yesterday's left-over vegetables and scraps of meat; fish that has been previously cooked and since re-heated, etc.—not one of them a natural, simple food product; cakes, pastries, puddings, and pies made from the most dubious and questionable materials. All of these are washed down by cups of tea or coffee made with water that has been boiling for hours, and containing two, three, or four lumps of "pure" refined sugar—sugar from which all the "impurities," the invaluable mineral

salts, have been removed—and augmented by white bread and rolls *ad lib.*, which are practically pure starch, similar in composition to the starch used for washing purposes, the anæmic and ghostly reflection only of what was once beautiful golden waving corn!

And this is the food a nation is expected to thrive on! And we wonder why cancer is increasing yearly in this country and people grow old at forty! Let the slogan be "pure food!"—simple, natural, unspoilt foods, and prepared in the simplest manner also. Insist upon having the simplest and most straightforward dishes. Dishes that you can be sure of, that you really know the contents of; that is the only way to make healthy living possible.

MODERN FOOD FALLACIES

Do not think that because something *tastes* nice it is therefore *good food*. Pure food, and therefore good food, is undisguised food, unadulterated food, and *not* the highly seasoned and concocted dishes which you have served to you at swagger hotels and restaurants on silver salvers.

If you want to go out to dinner sometimes, order the *straightforward* dishes; they may sound plebeian, but they will do less harm than their more aristocratic rivals on the bill of fare.

Pure food, in addition to meaning natural, simple foods, prepared in a simple straightforward manner, also implies simplicity of combination, so that if you value your health at all, the less frequently you indulge in table d'hôte dinners and the like, the better. The mixture of highly concentrated and mutually incompatible foods that is consumed on these occasions every day in every hotel and good-class restaurant throughout this country, in the belief that one is having a

really good substantial meal, is amazing! And if this sorry mess is washed down, as it usually is, by wines, liqueurs, and black coffee, it takes the body all its time to deal with such an invasion of its "inner sanctity," to the neglect of other and more pressing duties.

There can only be one result of "high" living of this kind—disease; yet most people spend all their lives in hankering after it, and it is the proudest boast of commercialism to-day that it provides its successful protégés with the opportunity and means to live in just such a way.

Verily, the pitfalls that beset the unwary traveller along the high-road to health, lined as it is with hotels, restaurants, tea-shops, and the products of modern food commercialism, are many, and the sign-posts few; but if it is carefully kept in mind that the purer and simpler the food one eats, and the less the variety at one meal, the better it is for the system—quite apart from its actual food value—then the traveller in question can walk more securely in this land of doctored, prepared, badly combined, and foodless foods, and his yearly expenditure at the drug store (always so much in evidence in our civilised world to-day) will appreciably diminish.

OBSOLETE COOKING METHODS

In addition to the fact that the food usually consumed in the ordinary household has been robbed of its valuable mineral elements before reaching the table via the grocery store, even those foods which *can* be bought and eaten as Nature intended, and which, owing to the abundance of mineral salts they contain, are known as "purifying foods" (I refer to fruits and vegetables), are practically entirely denuded of their invaluable properties by the obsolete cooking methods and old-fashioned notions of the average housewife.

It seems almost as if there were a conspiracy on foot to prevent the man in the street from taking into his system those mineral elements so essential for the preservation of his health and strength.

His bread, flour, rice, barley, sugar, milk, eggs, butter, cheese, ham, bacon, jams, etc., are tampered with, and many or most of the health-building properties they contain removed in the process; the meat or fish he eats, even when fresh and not tinned, potted, or preserved, has most of its valuable mineral salts removed during the process of cooking, by evaporation (whilst the waste products of the animal's own metabolism, which boil out into the water the meat is cooked in, are carefully preserved and used as gravy); and finally, the fruits and vegetables from which he *could* derive some of the elements so essential to the health of his system, and for which his body is literally starving, are also filched from him by the prevailing habit of peeling and cooking vegetables and stewing fruit.

Surely there have been few tragedies greater than this? Every carrot, potato, apple, or pear that is peeled and boiled or stewed, loses practically all of its mineral salts, whilst green vegetables when cooked in boiling water are rendered equally worthless. Yet these are the practices in vogue to-day throughout the whole civilised world, without exception.

Was there ever a more profligate squandering of Nature's bounty, of those elements McCann refers to as "more precious than silver or gold," and without which real health and vitality are impossible? Yet thanks to the manner in which the people of to-day live, they and their children are sentenced by their own ignorance and futility to spend their lives vainly trying to maintain health in a body practically

denuded of the elements so liberally supplied for that very purpose by Nature.

WHY TEETH DECAY

This explains why the teeth of the present generation are so poor as compared with those of their grandparents, and why dentists are so busy.

The body being deprived of its natural supply of mineral salts through the proper channels—the food we eat—it is forced to make up the deficiency the best way it can from other sources. Now it so happens that the richest stores of available mineral salts *within* the body are in the teeth—they consist of 96 per cent. mineral matter—and so the body, seeking always for the ultimate welfare of the individual, has reluctantly to remove these mineral elements from his teeth, and use them in the metabolic processes which are being so gravely interfered with by the absence of mineral salts from the demineralised and denatured food materials of to-day, supplied to his body by an unfortunately food-ignorant owner, who is probably eating four good meals a day and living on what he imagines to be “the fat of the land.”

The result is that his teeth begin to decay at an early age, and the dentists and doctors are kept busy inventing reasons for it, whilst his grandfather who lived on the simple, unspoilt foods of the pre-commercial era kept his teeth sound and intact all his life.

This at the same time also explains why the young children of to-day have such bad teeth. It is *not* due to the sweets and rich foods they eat; these are only secondary factors. *The main cause is lack of calcium and other mineral salts in their food*, and in the bodies of their mothers; for the child depends before birth for the calcium necessary for bone and teeth-

building upon the calcium supply of its mother, and if this is deficient, then bad teeth will be the result. Incidentally, this further explains why so many modern mothers find their teeth begin to decay suddenly after a confinement. The calcium required by Nature for the work of building up the young frame of the unborn child being absent from the demineralised and commercialised food of the mother, it is remorselessly taken by the same agency from the mother's teeth and used for the purpose in hand.

THE CASE OF THE "KRONPRINZ WILHELM"

Enough has been said to show that the refined, prepared, and therefore extremely concentrated foods of to-day (foods, that is, from which most of the mineral elements, water, and fibrous matter have been removed by modern food-business and cooking methods) are incapable of supplying the body with the materials required for proper functioning and healthy activity; whilst the starchy, sugary, protein, and fatty elements which are practically all that is left—the debased, denatured, and devitalised residue—are consumed in quantities out of all proportion to the needs and requirements of the system. The result is physical and often mental disaster to the health of the nation. (No wonder that it was discovered that we were a C₃ nation during the war!) And the only way to escape from this, the greatest, most insidious, and ever-present menace to the welfare of civilisation, is to insist upon having pure food—"PURE Food"— food that is unadulterated, not touched by chemicals, and containing all the elements with which it came from the earth or the animal.

Quite apart from the actual question of food reform, if the reader values his or her health, and the health of their children, then let them eat only PURE FOOD.

The most wonderful example on record of the effects the demineralised, concentrated, and foodless foods of to-day have upon even the best constitutions, under the best possible conditions of living, when the supply of fresh milk, butter, eggs, cheese, fruit, and vegetables, which usually help to make up the mineral inadequacy of our present commercialised dietary is cut off, is furnished by the account given by McCann in *The Science of Eating* of what befell the sailors on board the German raider, the "Kronprinz Wilhelm," during the war.

On April 11th, 1915, the converted German cruiser, "Kronprinz Wilhelm," was discovered lying at anchor off Newport News, U.S.A. after having been at sea for two hundred and fifty-five days (during which period she had sunk fourteen French and British merchantmen), with one hundred and ten of her crew of five hundred stricken with a disease which the doctors said was "Beri-beri," and many more verging on collapse.

McCann, hearing the news and being keenly interested in matters of this kind, journeyed to the spot and by means of strategy managed to get on board, where twelve doctors were in consultation trying vainly to discover the cause of the outbreak.

The doctors would have nothing to do with McCann (he was considered an outsider), but the ship's doctor welcomed his advice, and McCann was allowed to investigate the matter.

Of course, he at once turned his attention to the food the men had been eating, and he discovered that the whole of the two hundred and fifty-five days they had been at sea, the crew had been subsisting upon supplies taken from the ships they had captured and subsequently sunk. In the course of this

time they had as much fresh meat (each man could have had three pounds a day), white bread, white sugar, margarine, potatoes, canned vegetables, biscuits, condensed milk, and coffee, as they wanted, but no fresh butter, milk, eggs, fruit, or vegetables; and gradually after a few months of this kind of dietary the sailors began to fall ill. No one could discover the reason!

Things got so bad, and in addition to the one hundred and ten now seriously ill, so many more were being prostrated daily, that the Captain decided to run the blockade and dash for an American port for medical assistance, which he accordingly did, thus explaining his arrival at Newport News.

McCann at once realised that *the cause of the trouble was the demineralised food* the men had been living on, yet it was a diet ample in proportions, and similar to any indulged in by the average American or Englishman. Meat, white bread, boiled potatoes—are they not the mainstay of life? Cannot they easily and properly support life? The answer from the "Kronprinz Wilhelm" case is No! And when supplemented with polished rice, margarine, white sugar, sweet biscuits, canned vegetables, condensed milk, and coffee, the result was that one hundred and ten healthy men, living on the sea, were stricken with a disease like a kind of paralysis, and many more were nearly as bad after two hundred and fifty-five days of such a diet. (It is curious to note that the officers, who had a certain supply of fresh fruit, were not nearly so ill as the men.)

What did McCann do? He at once took upon himself the task of bringing the men back to health; but how did he do it? Did he administer drugs like arsenic or mercury, which is the medical way of treating conditions of this nature, with what results you can imagine? No! He put the men on a diet consisting entirely of *fresh fruit juices and vegetable soups* (the

latter being merely the water in which vegetables had been boiled, and which the “careful” housewife usually pours down the sink!). With regard to potatoes, McCann said : Peel them, throw them away, and put *in the skins!*”

His treatment worked wonders, and simply by giving the men the mineral salts for which their bodies were starving, and for lack of which they were becoming paralysed, they recovered in a remarkably short space of time. *Every man got well!*

It was a great personal triumph for Mr. McCann, though the implications of the case were completely ignored by the American medical profession; but what a light it throws on the foods of to-day—the foods our children are expected to grow up on!

Can a healthy nation be built up on the impoverished and commercialised foods of to-day? The “Kronprinz Wilhelm” case speaks for itself.



CHAPTER VI

EATING FOR HEALTH, NOT DISEASE

“The secret of successful eating and therefore the basis of healthy living, is to have a fair idea of the amount of protein, starchy, sugary, and fatty foods required by the system, to obtain them from the purest and most natural sources, and to make up the rest and bulk of the food from fresh fruit and vegetables—the latter preferably in the raw state in the form of salads, or conservatively cooked to ensure the retention of their mineral salts.”

This, in a nutshell, is the logical conclusion one must arrive at after a study of the facts described in the preceding pages; and it is to the consideration of what such a diet—which I prefer to call a sensible, rather than a scientific diet, as the latter sounds too mathematical and exacting—should consist, that the present chapter will be devoted.

Before doing so, however, it will be as well at this stage to say a few words about the two topics most to the fore in discussions of this nature at the present moment, and very carefully left out of this book for the reason that they serve no other purpose than to befog the issue and spread confusion everywhere within the field of dietetics. I refer to those two modern food shibboleths—*Calories and Vitamins*—and now I propose to clear them out of the way once and for all!

CALORIES AND VITAMINS

The calory theory is based upon the assumption that in

accordance with the amount of heat units (the calory is a heat unit) contained in a certain amount of food, as measured in the laboratory, a corresponding amount of energy will be derived from its ingestion by the body. It is a theory much in vogue to-day and accepted by the medical profession, but it is nothing but a theory, and when the part played by food in the body is really understood, its claims become at once absurd and ludicrous. That it is adhered to by the medical profession is only another indication of their lamentable ignorance in matters of this description.

Vital energy, from which physical energy is derived, has nothing to do with physical units of measure. It cannot be measured; it is something as elusive and intangible as life itself. *It is Life itself! What we have to realise is that Food is essential to life; we cannot live without it, but it cannot give us energy or strength—these come from within ourselves. And the only relationship food can have to physical energy is to supply our bodies with the elements required for their complete and harmonious functioning, thus enabling us to make use of our potential energy to the utmost advantage.*

Why, a man who has fasted for a week sometimes has as much or even more energy than when he began fasting, yet from the standpoint of the calory theory we should die if we did not eat food every day to obtain the energy to live with. And the more we eat, the more energy we should derive from our food, according to this inestimable theory—which the reader may test the next time he indulges in a really big Christmas dinner. It will take him all the energy he can muster to drag himself to a couch and fall asleep; but from the calory theory point of view he ought to be ready to walk a hundred miles!

When faced with such absurdities as this, the calory

theory shows its worthlessness as a basis for building up food values and food tables; yet it is very much to the fore at the moment, and is quoted by all the orthodox "authorities" on food questions. Why? Because these aforesaid orthodox and academic authorities one and all overlook, or fail to realise, the fundamental fact *that the body is not a machine, but a living, vital organism*, least of all a machine for registering heat units, and they therefore continue to pile absurdity upon absurdity as a result of their ignorance.

With regard to *Vitamins*, no scientist has yet succeeded in discovering their actual existence.* All that is known is that all natural, uncooked, and therefore unspoilt foods contain properties which are lost when these foods are subjected to modern food refining and obsolete cooking methods.

It is not our purpose to deny that vitamins exist; but all that is claimed for the vitamin is accomplished by the mineral salts also only found in natural, unspoilt foods, and lost through refining and cooking methods, with the direst results to the system. It is therefore much more sensible to concentrate upon the mineral salts which we *can* see than upon vitamins which we *cannot* see, and are therefore hypothetical; especially as if vitamins do really exist, then they can only do so in conjunction with the mineral salts. Because if the mineral salts are removed through refining or cooking then the "vitamins" are also automatically removed from food; so it is stated by the scientific authorities who profess to know of their existence.

It is best therefore when thinking about food, not to worry about calories or vitamins, but to realise that *real*

* This statement was true when this book was first written, but see now additional remarks regarding *Vitamins* in the *Appendix*, at the end of this book.

food, the food which the body requires and which Nature intended us to eat is found in the natural, unspoilt product of the animal and vegetable kingdom complete with all their mineral elements and health-giving properties and not subjected to the demineralising, debasing, and devitalising process of either modern commerce or old-fashioned cookery.

UNCOOKED FOOD

It follows from the above that the best interests of the body will be served by an exclusive *uncooked or raw food dietary*, and it may be of interest to the reader to know that the writer himself has lived on such a diet for several years now with the most gratifying results to both body and mind. It seems that the secret of perpetual youth lies in a raw, uncooked dietary, and when youth of body is retained in maturity, so also are vigour and elasticity of mind.

This does not mean, however, that health cannot be maintained or regained, as the case may be, except on such a diet; but the facts presented to the reader in the preceding chapters make it obvious that unless the purifying (and therefore the uncooked) foods are in greater evidence in the daily dietary than the cooked foods, the supply of mineral elements for proper bodily functioning will be lacking, and the amount of protein, starch, sugar, and fats ingested will be much more than the body requires, with the results already described.

A “SENSIBLE” DIET

A sensible diet therefore one from which the body can derive the fullest nourishment and benefit, is one in which fresh fruits and salads are much more in evidence than the usual ingredients of the average daily dietary, with its large quantities of meat and fish, its bacon and eggs, bread at every

meal, boiled vegetables, cakes, puddings, pies, white sugar, jams, and the like; and it is to the amount of protein, starchy, sugary, and fatty food that should be consumed daily by the average individual, in accordance with such a diet, that our attention must now be turned.

THE DAILY PROTEIN RATION

The amount of protein food required daily by the body for the purposes of growth, maintenance, and repair can easily be supplied by meat *or* fish *or* eggs, *once* a day; not, be it noted, meat *and* fish *and* eggs, but meat *or* fish *or* eggs, *once* a day; this is ample for the bodily requirements of any ordinary individual, especially those engaged in sedentary occupations. (If one is a very strict vegetarian, then nuts, and peas, and beans, or lentils, will have to supply the protein needed; but all things considered, these are not as good for the purpose required as animal protein, for reasons which will appear later.)

In case the reader should imagine that the amount of protein food quoted above as sufficient for his or her daily needs is much too low, the writer would like to point out that his own daily protein allowance, which would be considered by most people as insufficient for a child of five, and on which he leads a very active life, walking eight to ten miles every day and thirty to forty miles at the week-end, consists of *one egg, some nuts, and about a pint of cold milk daily*. On this he manages to keep his weight at about 140 lb., and walked three hundred miles over North Devon in a fortnight's summer holiday, on a protein intake which was very often less than that quoted above! It may further be pointed out that before the writer adopted his present diet, and lived in the usual way on eggs (sometimes bacon and eggs) for

breakfast, meat for lunch, and meat or fish in the evening, to say nothing of milk and liberal amounts of cheese, his bodily weight was much lower than it is at the present, and his general health was not at all good; his vitality and energy were also very much lower than they should have been. Since he has adopted his present mode of living and reduced his daily protein consumption to the amount stated above the writer has gained *fourteen pounds* in weight, whilst in addition his general health is better than it has ever been before, and his vitality and energy are enormously enhanced.

The reason for all this is simple and should be obvious by now to the reader, despite the popular cry that meat brings strength, and that unless one eats a fair amount daily, one is likely to suffer in consequence. In the case in question, the protein consumption being much more than the body required, the excess had to be thrown off continually, a process entailing a great amount of work by the kidneys, which are the chief organs concerned in the elimination of excess protein material from the system, in the form of urea—in solution in water as urine—and which suffered accordingly. In time the assimilative processes, through the perpetual clogging of the intestinal tract and other parts of the body with this daily accumulation of excess material, became greatly interfered with; and as time went on practically no assimilation was allowed to take place at all, so that no matter what or how much he ate, the writer derived little or no benefit from his food. Instead, all his bodily energy was turned in the direction of ridding his system of this ever-present accumulation of excess food materials which the organism was unable to make use of. He therefore became thin, and somewhat emaciated, in spite, or rather because, of all the food he was eating. It cannot be too strongly impressed therefore

upon the reader that it is *not what we eat that counts*, but *what we are able to assimilate*, as already pointed out in the first chapter; and if it be still further borne in mind that all the protein not actually required for use by the body has to be dealt with by the kidneys and eliminated, perhaps it will be seen why a drastic reduction of the dietary with regard to the amount of meat, fish, eggs, cheese, milk, etc., daily consumed by the average individual, is necessary. Let the reader remember that meat *or* fish *or* eggs, *once a day*, will be found ample in supplying his or her body with all the protein it requires, especially if they wish to avoid kidney or other serious trouble in later life.

THE DAILY STARCH RATION

We can now turn to the question of how much starch the body needs daily. It will be remembered that during the process of digestion, starch is converted ultimately into sugar, so that in reality starchy and sugary foods serve the same purpose in the body. But starchy foods like bread, potatoes, and bananas, contain valuable mineral properties which cannot be obtained from other sources, and so are necessary to man in spite of the fact that their digestion is an added strain, in the sense that they have to be first converted into sugar and cannot be directly assimilated.

There is no doubt that the people of to-day are suffering just as much, if not more, from the effects of too much starch, as from too much protein; and it is perfectly true to say that practically every individual one meets nowadays is more or less "starch-poisoned." Just consider the amount of starchy food eaten in this country by the average individual every day. Bread at every meal, potatoes, porridge, and cereal foods at breakfast, barley, rice, sago, tapioca (the three latter usually in the form of milk puddings), cakes, pastries, puddings,

pies, and bananas. (It is curious, but wherever you find an individual who is addicted to much starchy food, and has thus become starch-poisoned, the fruit he or she usually likes best is the only starchy fruit there is—the banana!)

Is there any wonder, then, that the body becomes starch-poisoned, clogged up with the accumulated waste materials of excessive starch ingestion, and always retains a residue of undigested starch in the stomach to cause fermentation, acidity, indigestion, heartburn, and all the other symptoms of excessive starch ingestion rendered worse by an equally excessive protein ingestion? And is it any wonder that these same starch-poisoned ones are constantly suffering from catarrh, and coughs and colds? *The latter are the only ways in which the body can rid itself of this ever-present burden and hindrance to its proper functioning.*

If the people of this country were to cut down their consumption of starchy foods to *one-tenth* their present proportion, *then the increase in the national health that would follow this simple act would be astonishing*; yet rich philanthropists are offering huge sums of money to scientific investigators who can discover the germs which cause colds! When one understands the relationship between food and disease, the efforts of modern medical science become ludicrous and tragically so, for think of the enormous waste of talent and courage and genuine honesty of purpose that must be taking place daily through the ignorance of the real facts of the matter.

We require starch and sugar to supply the muscles with elements constantly used up in muscular activity. There is indeed common fallacy to the effect that sugar and starch *supply* muscular energy; but the reader will have by now seen through this old hallucination, for he must realise that food

cannot supply real energy, but only the basis for its expression in the body. A certain amount of sugar, too, is necessary for the blood to do its work properly; but all these requirements can easily be met by a starch consumption of *four to six ounces of coarse wholenwheat bread daily*; this amount—about four medium-sized slices of bread daily—is all the starch the body requires. This has been proved over and over again during the course of the naturopathic treatment of disease, as well as the amount of protein required daily and already referred to, and the writer's own starch consumption is often less than this quoted amount daily.

If one happens to be a navvy or a farm labourer or outdoor worker, more starch will be needed (up to twice as much perhaps); but, for the average individual leading a sedentary indoor life, four to six ounces of wholenwheat bread once a day, with a salad meal, is all that is required, and the increase in health that will follow will be ample proof of this.

“But,” the reader will ask, “what about the other starchy foods, the potatoes, cakes, puddings, etc.? Are we *never* to eat these?”

If you wish, you may have potatoes occasionally, of course; they need not altogether be excluded from the dietary—they contain many valuable properties—but they should be eaten sparingly. They should always be baked in their jackets, not peeled and boiled, as they then become worthless as aids to health. A slice of cake now and then, or even a piece of pudding or pie, will do no harm if one is healthy; but as a general rule they are not good for the system, and if one is not in good health, and subject to colds, coughs, or catarrh, they should be strictly avoided.

It is curious, but that pride of all housewives and the greatest achievement of the culinary art—the pudding or pie

—is itself the worst combination of food materials it is possible to find, and the greatest violation of the laws of sensible dietetics. It is made from starch, sugar, fat, protein, and usually exceedingly acid fruits, too unripe to be eaten in the raw, uncooked state; and, unless one's digestion is really sound, it is likely to cause considerable trouble internally. Yet they are a prominent feature at every dinner-table, and to the majority of people a meal would not be complete without them.

It is not the intention of the writer to dogmatise about what people should or should not eat, and if one is really healthy and leads a vigorous outdoor life, then—up to a point—almost anything can be eaten with impunity; but the majority of people *do not* lead vigorous outdoor lives, and are *not* healthy, so that the more they disregard the dictates of common-sense, which, after all, are all that the simple rules here being laid down embody, the worse will it be for the physical well-being and health generally. **THE PHYSIOLOGICAL LAWS UPON WHICH THE HEALTH OF THE BODY RESTS CANNOT BE BROKEN WITH IMPUNITY EXCEPT BY THE REALLY STRONG, AND EVEN THEN NOT FOR VERY LONG.**

Before leaving the subject of starchy foods, there is one most important point that must be mentioned, and that is: that in order to obtain the maximum benefit from the digestion of starchy food it must be thoroughly masticated in the mouth, so as to ensure its complete impregnation by the ptyalin of the saliva before being swallowed. That is why *toasted bread*, or *twice-baked bread*, or *hard wholewheat biscuits*, are the *best forms of starchy food*; they have to be well chewed before they can be swallowed. On the other hand ordinary bread, boiled potatoes, porridge, or other breakfast cereals that have been softened with milk, and other cooked starchy foods, are never

really masticated, but swallowed hastily, and enter the stomach in such a condition as to interfere with the digestion of other food.

THE DAILY SUGAR RATION

We now come to the question of the amount of sugar daily required by the body. There is an idea prevalent among medical men and laymen alike that a fair amount of sugar is needed daily by the body, especially in winter, as it supplies the body with heat. But the heat supplied by the consumption of sugar has no appreciable effect upon the temperature of the body, which is always constant; it is only required and used during the processes of muscular activity; so that if one is living a sedentary life the amount of sugar required is very small indeed, especially if starch is being eaten as well.

All sugar eaten daily above that small amount is useless, needless, and even harmful, as it requires a great deal of oxygen for its combustion in the tissues, and prevents the oxygen being used for other and more important purposes. In addition, the heat it generates, not being required for the work of the body generally, is so much waste fuel, and the end-products of its combustion being excessively acid, they require a proportionately large amount of mineral salts, which the body can ill afford, for their neutralisation, especially when one is living on a demineralised diet.

Unfortunately, however, the "pure" white sugar so universally in use to-day, in beverages, as well as in jams, preserves, cakes, pastries, and confectionery, has had all its own mineral salts removed from it during the refining process, so that it will at once be seen that an exceedingly great additional burden is thrown upon the system by the use of white sugar in the proportions in which it is employed, especially when a person is already living upon the excessively

high protein and starchy diet of our modern civilisation.

White sugar is therefore nothing less than rank poison to the system, and the amount of it that is consumed daily by the children of this country, either in the "pure" form, or in jams, preserves, and confectionery, is enormous; yet we wonder why these same children suffer from measles, scarlet fever, and other exanthematous fevers! These "children's ailments" are merely the means by which an outraged (but always benevolent) Nature tries to rid the little body of the poisonous waste-products heaped upon it through the medium of the criminally excessive amounts of sugar children are allowed to eat in these days, to say nothing of equally grossly excessive quantities of starch in the form of bread, biscuits, cakes, pastries, puddings, and pies! (The whole question of child feeding will be dealt with in a later chapter.)

The harmfulness of excessive sugar consumption—especially white sugar—is hardly realised, and the best advice that can be given is to **LEAVE IT ALONE ALTOGETHER!**

If an individual has plenty of fresh fruit daily, and some dried fruit as well, all the sugar the body requires will be here supplied in the best possible form. If desired, a spoonful of honey may be taken during the day, but it is not necessary; it may be looked upon in the nature of a luxury for a healthy individual.

Even unrefined sugar (Demerara or Barbados), although much better than white sugar, is not needed at all if one is having plenty of fresh fruit and some dried fruit daily, and it can with benefit be left out of the dietary.

THE DAILY RATION OF FATS AND OILS

As in the case of protein, starchy, and sugary foods, far too much fatty and oily food is consumed in the ordi-

nary conventional diet; much more than the body requires. The amount of butter that can be eaten with three or four slices of wholemeal bread is all that is needed daily in this direction, especially if a little cream is taken with the sweet course, or a few nuts, and a little olive oil over the salad as a dressing. Yet think of the amount of fatty and oily foods that is eaten daily by the ordinary individual! His bacon is nearly all fat; he has butter usually at every meal; his puddings, pies, and cakes are made with fat; his fish is fried in fat or oil, and in addition to all this he has greasy soups, fat meat, cream, etc. Is this daily consumption of fatty foods excessive? I leave it for the reader to judge, and please note that it does not follow that fatty foods form fat (really useful fat) in the system; the animals with the most fat in them, pigs, sheep, and cattle, very often do not consume *one morsel of fatty food*.

The major portion of the fatty food eaten daily by the average individual has to be eliminated by the system, and thus simply means more hard work for an already over-worked organism.

Butter *once a day*, or nut butter, if one is a strict vegetarian, will be found to supply the body amply with all that it requires in that direction.

The fat one usually observes in obese persons is the result of faulty metabolism, and is a sign of disease or fatty degeneration of the tissues, mainly due to the daily ingestion of excessive quantities of starchy, sugary, and protein, as well as fatty foods.

A SPECIMEN DAILY DIET

It will be seen from this analysis of the foods in common use at the present time, and the conclusions arrived

as to the amounts of these foods actually needed daily by the average individual, that a drastic alteration will have to be made in their dietary by all those who realise the truth of the statements here made, and wish to benefit accordingly. The exaggerated importance and prominence given to protein, starchy, sugary, and fatty foods in the daily dietary of civilisation, and the corresponding disregard and neglect of the purifying foods—the fruits, salads, and vegetables—will have to be reversed, and these latter, instead of being regarded as mere adjuncts to the ordinary staple fare, will have to assume their rightful position as the most important items of the daily menu. It is curious, but the more people become addicted to the heavy, clogging, cooked foods so much in vogue to-day, the less inclined they become to eat the lighter purifying foods. These are really not looked upon as food at all, but just as something to fill-up on after the main needs of the body have been satisfied with plenty of meat, bread, potatoes, puddings, and the like!

If therefore a sound, sensible form of dietary is desired—one from which the body can obtain all the elements it needs, in the best possible manner, and with the least amount of effort—all this must change, and fruits and salads be given their rightful place at last. As the purifiers of the body they must be first in importance, with the protein, starchy, sugary, and fatty elements needed subsidiary to them, and combined with them in a manner which our study of the physiological processes regulating the ingestion of food in the body leads us to believe is most conducive to the health of the individual. *Only in this way can a really healthful diet be arranged.* And a week's specimen menus built upon these lines, showing how these various

foods in their proper proportions should be combined with each other, will be found in the Appendix, as a guide to those anxious to make the necessary alterations in their daily food habits, if real health and vitality are desired. Such a diet, based as it is upon the soundest physiological principles, and *not* upon vague theoretical conjecturings, as is usually ignorantly and foolishly assumed by the supporters of the unregenerate food habits of to-day, is an ideal and perfectly balanced diet, sufficient in every way for all the daily needs of the body, and conducive to the greatest good of the system.

Living on a diet such as that outlined under the "Week's Health Menus" to be found in the Appendix, the reader can rest assured that he or she will be eating for health and **NOT** for disease.

If the Health Menus are adopted, the body will be helped to carry out all its functions in the best possible manner, instead of being hindered and interfered with and having a great strain imposed upon it, as is the case with the ordinary diet of to-day. In addition, the amount of available bodily energy will be found to be much greater than it is at present, for no longer will the system be required to deal with that ever-present surplus of waste matter so inevitable with ordinary methods of eating. The increase in vigour and vitality will be therefore enormous, as a direct consequence of this substitution of the new methods of living for the old.

That old, fallacious idea that we have to eat a large amount of food daily to keep up our strength, has received its death-blow at the hands of modern dietary research. *The secret of bodily strength lies in giving the system just the amount of food it requires, and no more.* The excessive feeding

of to-day means loss of strength, not gain, to the body, and if the reader can now see this point clearly, he or she will have achieved something really worth while.

Special Note on Acid Fruits

It is necessary at this juncture to combat a foolish misconception prevalent to-day, to the effect that because acid fruits when taken into the stomach are acid in character, there will be a corresponding formation of acid material in the tissues as a direct result. *This is completely fallacious and unscientific.* As the reader has already seen, food materials such as starches, proteins, etc., which are not acid in character, upon entering the stomach, nevertheless always form acid waste products in the tissues; whereas acid fruits by virtue of the abundance of alkaline mineral salts they contain have a directly opposite effect. Their reaction in the system is alkaline. It is by virtue of this fact that they are able to neutralise the acid waste materials produced as a result of the metabolism of other foods, and, with raw vegetables, have earned for themselves the name of cleansing and purifying foods.

REMEMBER: Starches, sugars, fats, and proteins are acid formers, NOT acid fruits! (It is essential, however, to see that all fruit eaten is QUITE RIPE. *Unripe fruit* can do no good to the system whatsoever.)

CHAPTER VII

THE ART OF COMBINING FOODS

Our study of the process of digestion has shown us that certain groups of food—*proteins*—require an *acid medium* for their digestion, and are digested in the stomach; that another group—*starches*—require an *alkaline medium* for their digestion, which is begun in the mouth, continued in the stomach only as long as there is no protein food present, and concluded in the intestines; and that a third group—the *fats and oils*—are not digested in the stomach at all, but in the intestines, thus not interfering with either protein or starch digestion. (Sugars, which constitute the fourth group, are digested soon after entering the stomach and are then carried to the liver to be stored up as *glycogen*, thereafter to be gradually introduced into the blood-stream as needed by the demands of the body.)

This means to say, that *starches* and *fats*, and *proteins* and *fats*, may be eaten together, but not *starches* and *proteins* if the best results from the food eaten are to be obtained.

If one is really healthy and leads a vigorous outdoor life, then starches and proteins can be eaten together with no harmful after-effects; but if one is a sedentary worker, or is leading an indoor life generally, any enervating influences such as worry, overwork, mental tension, strain of any kind, will have the effect of interfering with the digestive processes, and it is in these cases that starches and proteins should be kept apart as much as possible.

THE CAUSE OF INDIGESTION

This is the real cause of indigestion—the eating of meals consisting mainly of starchy and protein food elements, to say nothing of the added incubus of sugary foods—in an enervated system. Remember, starches require an alkaline medium for their digestion; proteins an acid medium; *their simultaneous digestion is therefore out of the question*. Yet practically every meal eaten in this country to-day is almost completely starchy and protein in character. The digestive processes are greatly taxed as a result, and if one is enervated in any way, as already mentioned, indigestion must follow.

All the starch not readily digested in the mouth and converted into sugar—and with modern habits of hastily bolting and swallowing food without first thoroughly chewing it, as is demanded of starchy foods, there is not much likelihood of this—will have to remain in the stomach in an undigested state, until all the protein portion of the meals has been dealt with; and only then will it be allowed to pass into the intestines for final digestion. In the meantime, the presence of this accumulation of undigested starch in the stomach is a continual menace to satisfactory digestion, though if one is young or leads an active life, this is not a matter of great consequence; for the system is quite capable of adjusting itself to this state of affairs, and dealing with it effectively. In the case of sedentary workers, however, and middle-aged people generally, there is always a danger of the digestive process being upset and fermentation arising; for in this manner the body seeks to rid itself of the undigested starch accumulation which is interfering with the proper digestion of the protein food.

This accounts for the prevalence of indigestion amongst

civilised races to-day, and is the basic cause of flatulence, acidity, dyspepsia, and all other symptoms of a disordered digestive system.

To attempt to "cure" this state of affairs by the administration of drugs, without seeking to readjust the physiological balance required by Nature, which is continually being upset by this excessive mixing of protein and starchy food, shows a lack of understanding of the ordinary physiological processes of digestion, as explained in any standard text-book on the subject; yet these are the means employed by the medical profession! Is it any wonder that indigestion still remains "uncured"?

THE ART OF SUCCESSFUL FOOD COMBINATION

The simple rule, then, upon which the art of successful food combination depends, is to avoid mixing starches and proteins as far as possible, unless one is really fit and well, but to combine starches and fats, and proteins and fats—the former also with sugars and green vegetables, which are non-acid, and the latter with both green vegetables and acid fruits, as we already know that proteins are digested in an acid medium. It is also not advisable to eat starchy foods in conjunction with acid fruits, if the best results from the food eaten are to be obtained.

In brief then: Starches, fats, green vegetables, sugars, may be eaten together as they require either an alkaline or neutral medium for their digestion. Proteins, fats, green vegetables, acid fruits, may be eaten together, as they require an acid or neutral medium for their digestion. But starches and proteins, and starches and acid fruits, should *not* be eaten together, *as a general rule*, if the best results are required from the ingestion of the food eaten. This, in a

nutshell, is the whole basis for successful food combination; yet simple as they are, these rules are completely unknown to the majority of people, and if known, as completely ignored by the medical profession. For how else could such gross violations of this simple art of food combination be permitted as the customary English breakfast, for instance, with its porridge and milk, its bacon and eggs, its white toast, bread and butter, its marmalade or jam, and its tea or coffee with white sugar? Or the equally atrocious table d'hôte luncheon or dinner, with its hors d'œuvres soup, fish entrée, boiled vegetables, sweets, biscuits and cheese, dessert and coffee? The popularity of meals such as these is convincing testimony to the fact that only to the very few indeed has even the idea of the necessity for proper food combination penetrated; by the average individual, *all food*, no matter what it is, is regarded as grist to the gastronomic mill, all of it equally welcome. And so he sees nothing incongruous in demolishing at a picnic, for instance, such mutually conflicting foods as ham, sandwiches, cakes, oranges, apples, bananas, chocolates, cheese, biscuits, tea, white sugar, tinned fruit, ice-cream, and various other oddments.

The only way to prevent such food crimes being perpetrated daily is to teach these simple rules of food combination to the children in every elementary school, together with an explanation of the purpose and function of food. But such possibilities lie in the dim and remote future. For the present it will have to suffice if the interested few know something about these vital questions.*

* Since the above was first written, the advent of the "Hay Diet" into popular favour has given much more prominence to the question of food combinations, but it is the present writer's opinion that Dr. Hay errs taking the idea to extreme limits.

THE BEST FOOD COMBINATIONS

Working from the basis, then, that starches require an alkaline medium for digestion and should be eaten with fats and oils, sugars and green vegetables, but not with proteins or acid fruits, for the best results to be secured from their ingestion, and that proteins require an acid medium for their digestion and should be eaten with either fats or oils, green vegetables or acid fruits, but not with starches, if the best results are to be secured from their ingestion, we may tabulate our results as follows :—

IDEAL COMBINATIONS

- (1) Starches and fats.
- (2) Starches and green vegetables.
- (3) Starches, fats, and green vegetables.
- (4) Starches and sugars.
- (5) Starches and dried fruits.
- (6) Starches, sugars, and dried fruits.
- (7) Starches, fats, dried fruits, and green vegetables.
- (8) Proteins and acid fruits.
- (9) Proteins and green vegetables.
- (10) Proteins and fats.
- (11) Proteins, fats, and green vegetables.
- (12) Proteins, fats, and acid fruits.
- (13) Fats and acid fruits.
- (14) Fats and sugars.
- (15) Sugars and proteins.

It is impossible to give examples covering all the various foods that can be successfully combined according to this list, but one or two illustrations of each group will serve to show readers how to set about this for themselves when arranging a meal.

(1) *Starches and fats.*

Bread and butter; cereals and cream; banana and cream.

(2) *Starches and green vegetables.*

Bread or other cereal and green salad; potatoes and green vegetables; cucumber sandwiches; lettuce sandwiches; watercress sandwiches.

(3) *Starches, fats, and green vegetables.*

Bread and butter and green salad with dressing of olive oil; banana, cream, and green salad.

(4) *Starches and sugars.*

Bread and honey; cereals and honey.

(5) *Starches and dried fruits.*

Cereals and dates, raisins, figs; raisin sandwiches.

(6) *Starches, sugars, and dried fruits.*

Bread, honey, and raisins, dates, or figs.

(7) *Starches, fats, dried fruits, green vegetables.*

Green salad with raisins, olive oil, bread and butter.

(8) *Proteins and acid fruits.*

Milk and fresh fruits; cheese and fresh fruits; meat and fresh fruits.

(9) *Proteins and green vegetables.*

Meat, fish, or eggs, with steamed green vegetables, or green salads.

(10) *Proteins and fats.*

Fish with butter sauce (fat meats—bacon, etc.—are all examples of proteins and fats naturally combined.)

(11) *Proteins, fats, and green vegetables.*

Roast beef and green vegetables; poached egg on spinach with butter.

(12) *Proteins, fats, and acid fruits.*

Roast pork with apple sauce; fish or meat grilled in butter, with lemon juice; nuts and apples.

(13) *Fats and acid fruits.*

Fresh fruits and cream.

(14) *Fats and sugars.*

Dried fruit and nuts; dried fruit and cream; stewed fruit and cream.

(15) *Sugars and proteins.*

Honey and milk; dried fruit and milk.

The reader can use his or her own ingenuity in devising other combinations in accordance with the above list, and these combinations can yet be further combined to form a complete meal. For instance:—

If one is having a salad meal, with brown bread and butter, which comes under group 3, then for a second course banana and cream (group 1) or biscuits and honey (group 4) or stewed or dried fruit and cream (group 14) would be ideal. Similarly, if one was having protein and green vegetables (group 9) for the first course, then stewed or dried fruit and cream (group 14), muscatels and almonds (group 14), or a little fresh fruit and cream (group 13) would be an ideal second course.

An important point to remember about meals, by the way, is that the less the number of courses they consist of, that is, the more they approximate to a one-course meal, the better. Simple meals are in every way more conducive to health than elaborate ones, no matter how well the latter may be combined.

This, then, is the almost unknown art of successful food combination; and the reader who is armed with the knowledge thus obtained, fully understanding the reasons

for it, not just committing the list and illustrations outlined above, to memory, but ready to bring it into active operation every time he or she has to choose or prepare a meal, will now be able to move securely and freely in this food-ignorant world of ours, instead of timidly and gropingly as before in the dark of dietetic obscurity.

UNWISE FOOD COMBINATIONS

- (1) Proteins and starches.
- (2) Starches and acid fruits.

Under group (1) we have such combinations as:—Meat and potatoes; meat and bread (meat sandwiches); meat pies; fish and chip potatoes; egg on toast; welsh rarebit; and most of the usual dishes in common use to-day.

Under group (2) we have:—Puddings, pies, and tarts made with unripe or very acid fruits; cereals and acid fruits.

It is strange that of all the possible food combinations there *can* be, these very two, starches and proteins, and starches and acid fruits—the two worst of all—should be the very ones most indulged in. They form the bulk of every English meal; breakfast, dinner, and supper all except tea, which is usually an exclusively starchy and sugary meal, and although not badly combined, is extremely badly balanced.

If one is strong, vigorous, and healthy, combinations of starchy and protein foods, or starches and acid fruits, will be dealt with easily by the system, and no harm will result; but if one is liable to attacks of indigestion, and the system is tired or has become enervated by overwork, worry, and nervousness, or lack of sleep, then combinations of this nature must cause trouble as already explained.

It is interesting to note, however, whilst on this subject

of unwise food combinations and their effects upon an enervated digestive system, that although indigestion and allied ailments are almost the rule amongst the adult population of most civilised countries, no attempt is made to alter the present-day methods of food combination, which are at the root of the trouble.

For instance, just look at the ordinary midday meal in vogue in this country : Bread, meat, potatoes, boiled vegetables, pudding or pie. What does it consist of? Starch, protein, starch, some green vegetables (from which *all* the valuable mineral elements have been very carefully removed by boiling), more starch, fat, sugar, and unripe acid fruit.

Can sound digestion be maintained for long on meals such as these? The answer is fittingly supplied by the enormous and ever-increasing number of indigestion cures advertised at the present time on every hoarding, tube-train, omnibus, tramcar; and staring at us from the pages of every newspaper and periodical.

Furthermore, it is well for the reader to remember that this natural and mutual incompatibility between starchy and protein foods, and starchy foods and excessively acid fruits, is increased and intensified in every case by the presence of sugar, either as cube or soft sugar, or as jams and marmalade; fermentation being more easily set up by sugar being introduced into a mixed starchy and protein meal than would otherwise be the case. Yet what efforts do the people's leaders and advisers in these matters—the medical profession—make, either by word of mouth or personal example, to put an end to the perpetration of these food follies which are daily interfering with the life and health of the nation? The reader can very well supply the answer to this himself.

Think what a world of difference a few words on the

subject from an authoritative source would make—but they are not forthcoming. That is why it is left to people like myself, through an agency such as this book, to do what they can to dispel this all-embracing cloud of folly, stupidity, and ignorance, in which the whole subject of sensible dietetics is shrouded from the public view at the present time.*

CONDIMENTS

The bad effects upon an enervated system of unwise food combinations are still further intensified by the use of those modern inventions of the food purveyors' art—condiments. Introduced to give a taste to the tasteless products of orthodox cooking methods—the mineral salts which naturally provide the flavour having been boiled out of the food of to-day in the cooking process—or to give a "fillip" to an otherwise jaded appetite, they serve only to temporarily increase the flow of gastric juice, thus allowing more food to be eaten than the body requires, and at the same time act as *internal irritants* to the walls of the stomach and intestines, leading eventually to inflammation of the delicate membranes involved, and hence to digestive disorders and disturbances.

They serve no useful purpose whatsoever, and by creating a false appetite do irreparable harm to the system. For

* Although in the foregoing pages the writer stresses the fact that starches and proteins are not an ideal combination, if eaten together, it does not seem to him essential that these foods should *always* be kept apart in the diet as emphasised by Dr. Hay. These foods may be eaten at the same meal *sometimes*, provided always that plenty of salad or cooked vegetables is taken at the same time. It is the *persistent mixing* of starches and proteins *at all meals* as is common habit to-day, which is to be avoided. (*The Health Menus* in the *Appendix* give the author's idea of how to arrange a weekly diet for oneself on food reform lines, to include the occasional mixing of starches and proteins with no detriment to the individual.)

it must be understood that when no appetite is present, it is a sure sign that things are not well inside the body; that the system is overloaded with impurities and excess food materials which the body desires to eliminate. So that all its activities being turned in this direction—namely, elimination—it does not wish for the moment to have any more food thrust upon it, and lack of appetite is the result.

Once this is understood, lack or presence of appetite is a sure guide to the internal condition of the body; and instead of sitting down to the usual three or four meals a day whether there is an appetite or not—as is the case to-day—and forcing oneself to eat by enticing a jaded system with tasty titbits and relishes, it would be far better for the individual concerned to forego a meal or even two or three until a normal appetite returns. This, of course, is never done, the worst offenders being the medical profession, who insist upon their patients being fed even though their whole being cries out that it does not want food; that it only wants to rest and recuperate. But the medical men are inexorable; fed their patients must be, and fed they are, even if they have to be forced. The result is further complications and trouble, and all the evils consequent upon these flagrant transgressions of Nature's wishes.

If readers value their health therefore let absence or presence of appetite be their guide to all eating, and in addition, the less prominent a position condiments occupy on their dinner-table, the better; as they only tend to disguise from an unsuspecting owner the fact that a real appetite is lacking more often than not, to say nothing of causing direct harm to the system! (By condiments, I do not only mean sauces, pickles, mustard, vinegar, and pepper, but salt also.)

Salt is necessary for the system; not in the crude mineral

form, however, but in the vegetable form, as it is found in all raw, uncooked foods, vegetables and fruits. As these salts—not only sodium, but calcium, potassium, magnesium, etc.—are removed from foods by refining, boiling, and stewing, the body's need for salt has to be satisfied by introducing into the food eaten common mineral salt (sodium chloride); but its action upon the body is quite different from that of the salt supplied through the natural agency of fruits and vegetables, or any natural uncooked food.

This difference of action in the body between mineral and vegetable salts is clearly shown by an examination of the iris of the eye, as carried out by iridologists. For, in the case of vegetable salts, nothing untoward is visible in the iris, but in those people who are addicted to using large quantities of mineral salt—either common salt on their food, or magnesium salts as purges and laxatives—a white ring appears around the iris called the “sodium ring.”

Of course, the “sodium ring” only appears in the eyes of those people who have been addicted to the excessive use of mineral salt over a period of many years, and its presence is a sure indication that the body is being constantly irritated by this unwanted accumulation of mineral matter, which is nothing more than a hindrance and burden to its proper functioning. It will thus be seen that common salt is not a help to the body, as so many people—including the medical profession—fondly believe, but really a burden and hindrance to the system. The reader must never lose sight of this essential difference between the action in the body of crude mineral salts, and the mineral salts derived from foods in the raw, uncooked state, or from fruit and vegetables.

If the diet is built upon sound, healthy lines and contains an abundance of fresh fruits and raw vegetables, the body will

obtain all the mineral salts it requires in a form most suited to its needs; but if desired, a little common salt may be taken now and then, and will do no harm to anyone. But used in the quantities it is to-day—at every meal and in every dish before it comes to the table—it must lead to harm in the long run.

BEVERAGES

The subject of food combinations cannot be left without some reference being made to the question of beverages, as these play such an important part in the modern daily dietary.

The amount of tea alone that is consumed daily in this country, to say nothing of coffee, cocoa, and other drinks, is veritably enormous and seems to be still on the increase, if one can judge by what one sees at popular restaurants, tea-shops, etc. Yet, everybody surely knows that excessive tea drinking is harmful.

Even the medical profession tells us that too much tea is bad for the nerves—a surprising admission for these “guardians of our health” to make, by the way, in these days of dietetic promiscuity—but not only is tea bad for the nerves, it is worse for the digestion, for the continuous use of strong tea has the effect of interfering with the digestive processes.

Tea contains two drugs or poisons—theine, an alkaloid as it is called, and tannin—and these have an effect upon the system similar in kind to that of alcohol. They stimulate at first, only to depress later, and the natural processes of the body are thus thrown out of proper balance. The digestion of starches in particular is delayed by excessive tea drinking, whilst the elimination of bodily impurities and food poisons from the system, via the blood stream and kidneys, is retarded.

Tea retards and prevents elimination; let the reader fully grasp this fact, for it explains why the early morning cup of

tea is so popular in this food-poisoned age of ours. During the night, the body has been active removing the waste materials from the cells and bringing them into circulation in the blood stream, preparatory to their being finally ejected from the system via the kidneys. Consequently, when the average individual who lives in the usual way on the usual kind of food awakens in the morning, he or she feels drowsy, tired, headache, etc., as a result of this nightly swamping of their blood stream with the toxins generated by their unwise feeding habits. They have their early morning cup, or two, of tea, and immediately feel refreshed.

Why? Simply because the waste products in circulation in the blood stream just referred to as being the cause of the unpleasant symptoms in question, have, for the time being, been removed. They have been thrown back into the tissues by the stimulating action of the deleterious agents in the tea—the theine and tannin. Thus, through the temporary stimulating action of these drugs, the blood stream has been cleared.

Let it be noted, however, that this transitory—for it is only transitory—feeling of refreshment is produced at the expense of the future health of the individual. For instead of the system being allowed to rid itself of the impurities with which it is encumbered, these have been thrust back into the tissues again. Nature's work has thus been interfered with, and the result is that any existing tendency to colds, catarrh, coughs, etc., is intensified; diseases of vital organs are rendered worse; and rheumatism and kindred ailments, if not already present, are made imminent possibilities.

The effects of coffee upon the system are very similar in kind to those of tea; only in this case the action of the heart is affected and the kidneys are made to suffer more, for it must be remembered that both tea and coffee are *diuretics*,

thus entailing additional strain upon those already very much overworked organs of elimination, the kidneys, in these days of excessive starch and protein consumption. Tea and coffee also affect the kidneys through the action of the alkaloids they contain—theine in the case of tea; caffeine in the case of coffee; their presence is a source of continual irritation to those delicate and vital members of our internal economy. If one's kidneys are not so strong as they might be, the less tea, and especially coffee, one drinks, the better will it be for that person's health.

The action of cocoa upon the system is not nearly so stimulating as that of either tea or coffee, and its after-effects are proportionately less harmful; but because of this lack of stimulating power the consumption of cocoa is negligible compared with that of its more "powerful" and therefore deadly, rivals.

One hears a great deal of talk about the "horrors" of the drink traffic, and the degrading effects upon the system of alcohol; but how many of the ardent advocates of prohibition would be prepared to give up their cherished cups of tea or coffee? Yet, in principle, there is no difference; alcoholic beverages, tea, and coffee, are all stimulants, only in the case of the former the effect is much greater and the result much more obvious, that is all.

Enough has been said to show the bad effects of excessive tea and coffee drinking upon the system; but the white sugar which is used for sweetening only serves to make matters worse, so that, taking it all in all, the British nation, to say nothing of the American, French, German, and others, is faced with pretty problem if better health is desired amongst its citizens.

A cup of weak china tea, once a day, without sugar, will do

no harm, but the excessive tea drinking indulged in, especially amongst the poorer and middle classes of this country, *must* lead to trouble, both nervous and dietetic, in the long run. The administration of tea to children in the quantities now in vogue, in addition to the popular method of child feeding, is doing more to sap the vitality of the future generation than is generally realised.

The drinking of any liquid, even water, at meals is not a very good habit, as its presence interferes with the digestive processes by diluting the digestive juices, and encourages the swallowing of food without proper mastication. The best time to drink water therefore is before a meal, or two or three hours afterwards.

The finest drinks undoubtedly are those made from fresh fruit juices, and the juice of one or two oranges, first thing in the morning, or the juice of half a lemon in a glass of hot water at night, will be found to have a most beneficial effect upon the kidneys and the internal functions of the body generally; in the Appendix to this book a section has been devoted to the question as to what the reader should drink and when.

In concluding this chapter on food combinations and the effects of beverages upon the system, it needs but little emphasis to point out that the excessive tea and coffee drinking indulged in in this country at the present time (to say nothing of stimulants of alcoholic origin and aerated mineral waters of the most dubious composition) is helping slowly, but surely, to complete that physical bankruptcy which is facing this, as well as every other civilised nation, as a direct result of the inability to distinguish between what is *real* food for the body—the food Nature has intended us to eat—and the depraved and foodless foods prepared and supplied by the food manufacturer and purveyor of our modern epoch.

CHAPTER VIII

VEGETARIANISM AND MEAT-EATING

There is a belief current in the public mind to the effect that all movements in the direction of "food reform" similar in character to that outlined in this book must of necessity be associated with the principle of vegetarianism. But if the reader has fully grasped the significance of "pure food" and its relationship to health, and the fact that only a certain amount of protein, starchy, sugary, and fatty food is required daily by the body—all of these foods consumed in excess of this amount being a burden and hindrance to the organism, and becoming the basis for future disease—then he will at once realise that whether one eats meat or not has no more to do with the question of food reform, than whether one eats bread or not. It is a question quite beside the point, and one for each person to decide for himself from entirely personal considerations and motives.

It is well to emphasise this absence of any essential link between vegetarianism and food reform, although it is true that they often go hand in hand, and to point out that to become a "food reformer" one does not have to embrace vegetarianism, and likewise that being a vegetarian does not necessarily guarantee a healthy and sensible form of living; for there is a tendency on the part of many who either for humanitarian or health reasons, have adopted a vegetarian form of dietary, to accentuate this one aspect of the food question and

make meat-eating the centre round which the whole question of food reform revolves.

It is this magnification of the meat question out of all proportion and focus which has led to the popular misconception as to the relationship between vegetarianism and modern food reform—a harmful misconception, be it noted. For, on the one hand, it prevents many people from adopting food reform ideas, because they imagine it entails the renunciation of all flesh foods, and on the other hand, it allows many vegetarians whose diet is the reverse of healthy to smugly congratulate themselves that they are on the high-road to health merely because they have desisted from eating meat, although their dietetic blunders are still as numerous as they were before they adopted their present mode of living.

There is every justification for the vegetarian who insists that meat-eating is a great factor in the causation of disease: so it is, in the quantities in which meat is consumed at the present time, as has already been pointed out in the preceding chapters! But the same remark can be applied with equal truth to starchy foods; yet these foods are consumed by vegetarians in far greater quantities than is the case even with the ordinary meat-eater, with his bread at every meal, potatoes, cakes, puddings, pies, and the like.

For the average vegetarian makes up for the absence of meat in his dietary by introducing dishes composed almost exclusively of starchy foods, combined with a certain amount of protein in the shape of nuts or beans or cheese or eggs. The result is that although he has escaped from the dangers likely to overtake a meat-poisoned system, he is more than ever likely to find himself the unfortunate possessor of a starch-poisoned system instead, with all that it implies in the shape of indigestion, constipation, colds, catarrh, coughs,

chest complaints, and so on.

Once the vegetarian realises that there is as great a necessity for *him* to adopt a sensible form of dietary, as there is for the average meat-eating individual; that the great bulk of his starchy and stodgy foods* must be thrown overboard if he wishes to escape the dangers of starch poisoning, he will have made a discovery of the greatest importance to his future health and general welfare. In addition, his insistence upon the dangers and follies of meat-eating will be tempered by an understanding of the dangers likely to follow upon the excessive consumption of any kind of concentrated food, as distinct from the non-concentrated or diluted purifying foods; and as a result, the whole question of food reform will be seen by him in a newer and truer light, viz., as something quite apart from vegetarianism, and not to be confused by the introduction of questions of a purely moral nature, namely, upon the right or wrong involved in eating or not eating meat or fish foods.

It is necessary to be absolutely clear on this point; for the science of dietetics is not called upon to decide whether it is right or wrong to kill animals for human food, but whether flesh foods as such are, or are not, conducive to health and healthy living; and the answer is undoubtedly that these foods are conducive to health and healthy living, providing one is leading a sound, vigorous, active life, and that they are not eaten in the usual quantities in vogue at the present time, but only once a day as already pointed out in the preceding chapters.

* His preparations of nut meats made from nuts and bread-crumbs; his macaroni and cheese; his vegetarian dishes composed mainly of mashed potatoes, bread-crumbs, beans, lentils, etc.; his bread at every meal—even if it is wholewheat—his puddings, pies, and cakes, even if they also are made from wholewheat flour and not white flour.

THE DISADVANTAGES OF MEAT AND OTHER FLESH FOODS

Meat or fish *once a day*, freshly cooked (not tinned or preserved meat or fish) and combined in the manner explained in the chapter on food combinations, are, if one is in good health, undoubtedly two of the best sources of protein for bodily requirements, and are much more easily assimilable by the system than protein from vegetable sources, such as nuts or peas or beans or lentils. Nevertheless, considered as suppliers of protein to the body, there are many drawbacks to flesh foods which are not shared by the other forms of animal protein, milk, cheese, and eggs, as the following considerations will show.

Firstly, as has already been explained in the second chapter, the by-products and waste residue accumulated in the tissues as the inevitable result of metabolism, no matter what kind of food is eaten, are always acid in character, and must be neutralised by the mineral salts present in the cells, and eliminated from the system if health is to be maintained. Now, in the case of flesh foods like meat and fish, the acid waste products thus formed are far greater in proportion to the amount of protein actually supplied to the cell than is the case with either milk, cheese, or eggs; so that it will be seen at once from this simple physiological statement that flesh foods are inferior in value as compared with the other animal sources of protein. It may further be stated that milk is very much less acid-forming than either cheese or eggs, and must therefore be considered as the best source of animal protein material for the body. This point is well worth remembering by the reader; fresh raw milk is undoubtedly the finest source from which to obtain protein for bodily requirements, and when taken in conjunction with acid fruits, as recommended in the

chapter on food combinations, makes an ideally balanced and nutritive meal.

Secondly, flesh foods, in order to supply the body with the full amount of mineral salts commensurate with their bulk, should be eaten in the raw, uncooked state, complete with the blood and bones, as is done by all carnivorous animals; but most human beings are revolted by such feeding methods, and if cooking had never been invented, there is little doubt that the present popularity of flesh foods would have been impossible, simply through this natural aversion to raw flesh on the part of human beings—a sure sign, by the way, that man was never intended by Nature to be a meat-eater; as is also further indicated by the shape of his teeth and the size of his bowel, which both point to an original frugivorous or fruit-eating feeding method.

Meat, after it has been cooked and the blood and bones removed, is sadly lacking in those mineral elements so essential to health and vitality, which are retained in fullest abundance in fresh milk, fresh dairy cheese and eggs. It follows from this consideration that flesh foods must be eaten very sparingly, and always in conjunction with other foods containing large amounts of mineral salts, such as green vegetables, either as salads or conservatively cooked, or fruit, although this latter may sound a peculiar combination to conventional ears. Invalids and those not in really robust health or doing active outdoor work should replace meat by the other animal foods, milk, cheese, or eggs.

Thirdly, if the reader is not yet quite convinced of the superiority of the dairy products over flesh foods, either through disinclination to give up long-cherished opinions, or the effect on the mind of custom and tradition, there is yet further reason for ascribing superiority to milk, cheese, and

eggs, as protein suppliers to the body, which will now be made explicit.

When an animal is killed, its own metabolic processes are violently cut short, so that the waste products present in its tissues, which would have been eliminated through the usual channels if the animal were still alive, are locked up and retained in the system. This means that when meat or any other flesh food is eaten, these waste products of the animal's own metabolism are taken into the system of the consumer and have to be dealt with in addition to the normal by-products consequent upon the ingestion of any food. In short, when any kind of flesh food is eaten, the system has to deal with two series of waste products instead of one; a further reminder that if one is not obtaining a sufficiency of mineral salts from other sources, and is not in the best of health, the protein for bodily requirements should be obtained from the dairy products and not flesh foods. These latter must be left to the really robust and healthy, like hunters, lumbermen, and those who live outdoor active lives generally.

There are very few indeed who are aware of this important fact of the animal's own waste products being locked up and retained in the tissues, and therefore present in all flesh foods when eaten; especially is this the case with regard to the organs engaged in the work of cleansing the animal system of impurities—the liver and kidneys—for these organs are full of poisons being extracted from the animal organism preparatory to being finally ejected from the animal system. Yet these same organs, the liver and kidneys, are looked upon universally as dainty titbits and delicacies!

If one must have meat, then, let it be the flesh itself and not either of the organs just mentioned. These should be assiduously avoided if meat-eating is to be beneficial to the

system and not a menace. Never eat these cesspits and sewers of the animal organism! This is indeed what the eating of liver and kidneys amounts to; yet liver and liver extract are very much in vogue at the present time as "medicinal agents" supposedly of real curative value—and are prescribed as "specifics" by medical men in the treatment of pernicious anæmia, because it has been found that these products of the animal organism stimulate the blood-making powers of the human body, although what their ultimate effects may be is never enquired into!

Having now made clear the three main reasons for the inferiority of flesh foods, compared with dairy products, as a means of supplying the body with the protein it needs, it is still necessary to point out that the eating of flesh foods in hot weather is dangerous, as there is always a possibility of putrefaction occurring, either before the meat is eaten, or whilst it is still in the stomach during digestion, thus leading to ptomaine poisoning or less serious manifestations of a similar nature.

When eating at restaurants one can never be sure of the condition of meat or fish before it comes to the table and with the present-day money-making instincts to the fore, there is every incentive for unscrupulous hotel and restaurant managers to "doctor" partially decomposing meat and fish and serve it to unsuspecting patrons. The best plan therefore is to avoid all flesh foods during a hot spell and to supplement the dietary by less perishable foods.

Especially in tropical countries should flesh food be avoided, and be replaced by juicy fruits and salads if one desires to maintain health and not become a victim to malaria or dysentery. It is through the eating of their customary large meat meals, two or even three times a day, that Europeans

suffer such bad health in countries whose climate and conditions render a meat diet extremely foolish and even dangerous. When such a diet is supplemented by alcoholic drinks and a daily dose of quinine, the seeds are sown for all the well-known list of tropical diseases.

MEAT EXTRACTS

Before concluding this chapter on vegetarianism and meat-eating, it is necessary to say a few words about those derivations of meat known as meat extracts, which are so popular to-day, and are so childishly supposed to contain the best elements of meat in a concentrated and handy form.

If the reader has understood what has been said about the waste products of animal metabolism being retained in the tissues when the animal is slaughtered, he will realise at once that when meat is pressed, the juice which is extracted from it and made into meat extracts is nothing else than these very same waste materials, plus a little water and blood, which have been thus "extracted" from the animal's tissues.

It may sound astonishing after what one sees on every hoarding and in every newspaper and periodical throughout the land concerning the "nutritive" and "health-giving" effects of the popular brands of meat extracts, but 66 per cent. of all beef extracts consists of these same waste products of animal metabolism, which would in the ordinary course of events have been expelled from the animal's system as *urine*.

On this same subject of meat extracts Professor Haliburton, the eminent physiologist, writes:—

"....Instead of an ox in a teacup, the ox's urine in a teacup would be much nearer the fact, for the meat extracts consist largely of products on the way to urea, which more

nearly resemble in constitution the urine than they do the flesh of the ox....”

The same remarks apply equally to meat broths, gravies, beef teas, and the like; yet all these, as well as beef extracts, are prescribed religiously for invalids by their medical advisers and are regarded as the best means through which to supply a depleted system with the elements it requires for regaining bodily health and vigour. No comment upon this tragic absurdity is needed.

CHAPTER IX

THE FEEDING OF CHILDREN

How many parents know that the diseases their children suffer from—the so-called “children’s ailments” which throughout the whole civilised world are considered to be unfortunate, but “necessary” episodes in the life of every child—are the direct result of the criminally foolish manner in which these same children are fed?

Measles, whooping-cough, scarlet fever, croup, rheumatic fever, tonsilitis, etc., are all of them the outward manifestation of Nature’s attempts from within to rid the little body of the waste matter and impurities accumulated through the daily consumption of the monstrously excessive amounts of starchy, sugary, fatty, and protein foods usually given to children.

Do parents ever stop to consider what effect upon the body is going to result from the bread at every meal, porridge, breakfast foods, other cereals such as rice, barley, sago, tapioca, potatoes, biscuits, cakes, pastries, puddings, and pies, which they allow their children to eat habitually? Or from the enormous quantities of sweets, chocolates, sugar, jams, and marmalades they likewise encourage or allow them to consume? Something has got to happen to the children concerned, especially as enough protein food, sufficient or more than sufficient, for the requirements of a grown adult, is usually portioned out to these same children daily; and that something is disease.

But no one dreams of connecting the bread, meat, cakes, pies, sweets, jams, etc., given to children, with the various so-called children's complaints they suffer from as a direct consequence—least of all the medical profession; and so the demineralised, debased, and denatured foods given to children are allowed to play havoc with the health of the men and women of to-morrow, merely through this lamentable lack of understanding on the part of those directly responsible.

GIVE THE KIDDIES A CHANCE

How can we expect boys and girls to grow into healthy men and women, if the elements so vitally necessary to growth and health are filched from the food they eat by modern commercial and obsolete cooking methods, and the debased and depraved products given to them in such excessive quantities? Let every parent and responsible person ponder over this question and then they will begin to understand why, in this age of improved sanitation, scientific advancement, and medical skill, in the United States of America, in a recent year:—

400,000 children had organic heart disease,
1,000,000 children had tuberculosis,
1,000,000 children had spinal curvature,
1,000,000 children had defective hearing,
4,000,000 children were suffering from malnutrition
(*not starvation*),
6,000,000 children had enlarged tonsils or other gland diseases,
10,000,000 children had defective teeth, and
15,000,000 children needed attention for physical defects.

What a fearful indictment of modern American food methods, applicable in very like degree to this country also.

Give the kiddies a chance! Let them have the opportunity which is theirs by natural right, to become really healthy men and women. Give them pure food—**PURE FOOD**—food containing all the mineral elements intended for their little bodies by Nature; and in quantities suitable to their years.

If meat and bread once a day are sufficient for a grown man, how much of these same commodities will be required by a child? In any case, meat should never be given to children until they are at least five years of age, as their glandular system is not ready to deal with it properly until that age—especially the thyroid gland, which plays an important part in protein metabolism.

Fresh fruits and green vegetables are absolute necessities for all growing children, and should form the major part of their daily dietary; if, in addition to these, they have some fresh milk daily, some coarse wholewheat bread, butter, cream, honey, and a little dried or stewed fruit, with cheese or egg, or fish, that will be all the food they need for building healthy bodies full of vigour and the joy of existence. (For examples as to how these foods should be combined, see the chapter on food combinations, and also the “Week’s Menus for Children” in the Appendix.)

THE REASON FOR ENLARGED TONSILS

Why are enlarged tonsils so prevalent amongst children to-day? Because the lymphatic system, of which these glands form part, is always busily engaged in cleansing the body of impurities due to faulty nutrition. Is there any wonder, then, that these lymphatic glands—the tonsils—occasionally become engorged and swollen (en-

larged as it is called) with impurities, when we consider how the children are fed? The tonsils are veritably the drains and sewer of the mouth, but when they become over-full and stopped up, does medical science say, "Let us prevent further impurities from entering the system until this present over-accumulation has been dealt with, and the tonsils allowed to subside to their normal size?" No, these bulwarks and defences of the infant system are surgically removed, and the whole business of child-cramming allowed to continue as merrily as before. The result is further weakening of a system already beginning to be undermined by demineralised foods and excessive feeding, thus paving the way for all serious complaints of childhood.

If parents value the health of their children, they should never allow the tonsils to be removed if enlarged, but treat them by Nature-Cure methods, and the tonsils will subside to normal in time, in the great majority of cases.

CONFECTIONERY SHOPS AND PASTRY-COOKS

Of all the factors at work to undermine the health of the child of to-day, those provided by the confectionery shop and pastry-cook, are the two deadliest. They are everywhere in evidence, and what child can resist them? Why, even if some parents *do* attempt to bring their children up sensibly, they have to wage a continual war against these deadly enemies to child welfare.

One of the most crying needs in this or any other civilised country at the present time, if the welfare of the future men and women in it is to be considered, is the abolition of the confectionery shop, and the restriction of the sale by pastry-cooks of all but the plainest cakes, scones, and the like; (these to be made from the best and purest ingre-

dients, by the way). If this were done—and it should be no more difficult than the enactment of prohibition in the United States—and fruit and vegetables elevated to the rank now occupied by cakes and sweets in childish favour, then this alone, apart from any revision of the child dietary along the lines advocated in this book, would do more for the health of children than any of the so-called “miraculous” discoveries of the bacteriological laboratory, the surgeon’s knife, or the drugs, sera, vaccines, and antitoxins which to-day make up the stock-in-trade of the medical profession—the nation’s “fighters of disease”!

THE BABY

Just as much ignorance with regard to food and feeding is displayed by the nurse and mother, either before the child sees the light of day, or the year or so following, as later; and most of the trials and troubles of child-bearing are entirely due to the unwise food habits of potential mothers, as well as are the “usual” ills of babyhood which follow.

How can a prospective mother, living on depraved, debased, demineralised, and “foodless” foods, provide her child with the elements it needs for proper body-building? It is an impossibility. And until mothers include in their dietary an abundance of fresh fruits and green salads, as well as only pure, unspoilt foods, most babies will continue to be born fat and flabby—a sure sign of impaired vitality, and *not* of bounding health, as is usually imagined by fond parents and admiring friends—with all that this means in pain and trouble to the mother.

Why are so few civilised women able to nurse their own babies? Because the foods they eat do not provide them with the materials necessary for proper lactation.

But their grandmothers nursed their babies all right! Why? Because they lived mainly on natural, unspoilt foods.

And when the baby of to-day, not fed by its mother, is brought up on the patent "baby-foods" of our commercialised era, what is the result? An unusually fat or thin infant, never really well, and consequently continually in the hands of the doctor.

When a child thus brought into the world and started in life is later fed in the usual haphazard style, and allowed to eat sweets and cakes and ices at all times of the day, can we really wonder why "children's complaints" are looked upon universally as inevitable adjuncts to child life?

If a mother cannot nurse her own baby, it should be brought up on diluted cow's milk and fresh fruit juices only, along the lines indicated by such pioneers of infant welfare as Dr. Truby King.

Later, when teeth begin to arrive, it should be given a wholewheat crust to chew, and still later, fresh fruits and vegetables should be added to the dietary. In this way the baby will receive the much-needed mineral elements not provided by the mother before birth, and real health developed.

The writer himself has a friend who, with a bad health record, could not feed her own child, and after being brought up as directed above, this child, at the age of two, is the sturdiest youngster the writer has ever seen.

The child is indeed father to the man, and it is by building up the health of the children by the methods advocated in this book, that the deadliest blow against disease ever struck by man can be delivered, and the humanity of the future thus given the greatest start in life possible to anyone—namely, a healthy, vigorous babyhood.

CHAPTER X

CONCLUSION

The main task of this book having now been accomplished, and the reader left in full possession of the chief facts concerning the food he eats, and its relationship to the health or disease of his body, there still remain one or two words to be said concerning the manner in which food should be eaten, which, although a little outside the actual province of dietetics itself, are nevertheless germane to the subject in hand.

Such a dietary as that outlined in the "Health Menus" contained in this book must of necessity tend towards the health and efficiency of the individual, simply because it follows along the path indicated for man by Nature, as revealed by the study of the physiological laws of his being. It will provide him with the basis essential for health; that physical basis without which real health of mind and body is impossible. But for his body to derive the maximum of benefit from such a dietary, certain changes in his food habits, as well as in his actual food itself, are required of the disciple of these new methods of living. The first of these requirements is regularity of meals.

REGULAR MEALS

Regularity of meals is essential if the body is to derive the maximum of benefit from the food eaten, and three meals a day along the lines indicated in the specimen diet

sheet, at regular intervals, will be found to be quite sufficient to supply all the needs of the average individual in the fullest degree and with the best results to the organism. Never eat between meals, and especially never allow children to do so, as it is an extremely bad habit, and one of the great predisposing causes towards indigestion.

Leave plenty of time between meals to allow of the food materials from the last meal being properly digested and dealt with by the body. About five hours is best for this purpose—say, breakfast at 8 a. m., lunch at 1 p. m., and the evening meal at 6 p.m. If this is done, tea will not be necessary as a meal; but a cup of weak tea at 4 p.m. is not likely to cause any harm if taken alone, without sugar, but not with bread, jam, and cakes.

Regular habits of eating such as these must tend towards internal harmony, and combined with a sensible diet will go a long way towards producing a healthy and vigorous body.

CALMNESS AND DELIBERATION AT MEALS

It is impossible to derive the maximum amount of benefit from the food we eat, if one comes to a meal in a hurry, or is worried, "nervy," or over-tired. The digestive processes will not function properly on such occasions, and food eaten when one is in such a condition does more harm to the system than good, especially if one is not in the best of health.

Food must be eaten deliberately and calmly. Every mouthful should be chewed slowly, thoroughly masticated, and enjoyed, not hastily bolted and swallowed, as is the usual practice in these days of business hustle. To rush into a restaurant for a meal, eat it hurriedly, and rush out again, is to look

for trouble, and must lead to digestive disturbances sooner or later, even if the food eaten is of the best kind as measured by food reform standards.

In addition, always allow plenty of time after a meal for the digestive processes to get well started. Never leave the table directly after a meal. Don't rush off immediately to catch a train, or commence some strenuous physical exercise or work. These habits lead to digestive troubles eventually, even if one is not conscious of them at the time.

THE RIGHT MENTAL ATTITUDE

The mental attitude of an individual—the way in which he or she looks at food—is of almost as great importance as the actual food itself.

A person who knows nothing about food reform, who lives upon the ordinary kind of diet in vogue, impoverished in essential mineral properties as it is, and violating all food laws as it does—a person living upon such a diet, not thinking about his food at all, except as something which he likes to eat, and with a happy, cheerful disposition, taking life easily and calmly—is far more likely to be in good health than one who, while living upon a diet in strictest accordance with the dictates of scientific dietetics, is yet neurasthenic in temperament, always worrying about his food, and makes eating the most pre-eminently important of all bodily functions, instead of the simple, almost unconscious act, like breathing or walking, which it is really intended to be. The more one thinks about one's food therefore beyond a certain point, the worse it is for that person's peace of mind and the health of his body.

Once the facts concerning the ingestion of food and the importance and necessity of pure food, and proper food

combinations, have been grasped and understood, they should be kept at the back of the mind, not always in the centre of one's consciousness. Too much attention paid to food and eating tends to make the question of diet too much like a science, and every meal a mathematical problem that has to be solved. This is bad for the health and defeats the end for which such a diet was intended. See that you get what you want therefore but do not become obsessed by the subject, or cranky, faddy or neurasthenic about it.

THE OCCASIONAL FAST

Although eating is such a necessary part of life, there are yet times when not eating, or fasting, is just as important; and its necessity is indicated by an infallible sign—lack of appetite.

Never eat unless you are really hungry; unless you can enjoy every mouthful. Never force yourself to eat. If you have no appetite, it is a sure sign that the body does not require any food at that moment; and to force yourself to eat just because it happens to be meal-time is an exceedingly unwise procedure.

Food eaten on such occasions is food wasted, and will only cause harm, no matter how good it may be intrinsically.

Acquire the habit of self-control and miss a meal, or even two or three, and wait until normal appetite returns, instead of sitting down to eat a meal without really wanting it, merely because the dinner bell has gone.

In any case, an occasional fast for twenty-four hours, about once every month or so, is recommended to all, irrespective of well-earned rest, and the benefit derived by the system as a whole, as a direct result, is astonishing.

The value of fasting in the treatment of disease has

been demonstrated again and again in Naturopathic practice, and its importance in maintaining as well as regaining the health of the individual should be realised by all. The question of fasting will be further dealt with in the section on "The Treatment of Common Ailments."

THE NEED FOR EXERCISE AND HEALTH-BUILDING MEASURES

The need for proper exercise and other health-building measures, in conjunction with a form of diet such as that outlined in this book, cannot be too strongly emphasised, and for the guidance of the reader, particulars as to daily Dry Frictions, Cold Rubs, Sitz-Baths, Physical Exercises, Breathing Exercises, and the like, will be found in the Appendix.

Real health can only be maintained if all the various organs and structures of the body are brought into active use daily, and thus given an opportunity to employ themselves as Nature intended; and for this purpose there is nothing so efficacious as exercise. As to what form the exercise should take in the case of each individual reader, that is outside the scope of this book to dictate; but it may be mentioned in passing that walking is undoubtedly the best as well as the simplest and cheapest for this purpose. A walk of at least four or five miles every day should be undertaken by every individual desirous of keeping his or her body at a proper level of fitness.

* * *

With these parting admonitions and observations the reader will now be left to finally steer his course as best he can through the crowded sea of life, amidst the unchart-

ed reefs, rocks, and sandbanks of modern—or rather obsolete—food ideas, customs, traditions, and habits; assured, however, that at last he has at his command a trustworthier guide in his wanderings than that possessed by the vast majority of his fellow-voyagers.

APPENDIX

A COMPLETE GUIDE TO HEALTH

All effective or "Natural," as opposed to suppressive or "Medical," treatment of disease depends in the last analysis upon proper dieting. This is as might be expected. If wrong feeding can cause disease (and the preceding pages have clearly shown this), surely sound, sensible dieting can cure it? And in the natural treatment of disease this truth has been reaffirmed again and again by Nature Cure practitioners the world over.

As a practical addition and fitting conclusion to the present volume therefore the writer has undertaken the elaboration of a complete dietetic guide to health in which all the more prevalent diseases which beset man are dealt with in a manner which makes it possible to carry out the various measures advocated in the patients' own homes. This task has been performed with the assistance of the Health Advice Department of *Health for All*, which is under the personal directorship of Mr. Stanley Lief, whose name is surely first in matters relating to the natural treatment of disease in this country.

Thus every reader will be presented with the opportunity to build up, maintain, or regain his health upon lines which have proved effective in the curing of thousands of cases of disease spread throughout the length and breadth of the United Kingdom. An opportunity, be it noted, never before offered in a book of this nature.

Although proper dieting is the basis for the cure of all disease, yet diet alone is never quite sufficient. Other health-building measures have to be employed, such as proper exercise, deep breathing, care of the skin, etc., and consequently these important measures can never be excluded from a health regime designed to enable the sufferer from disease to effectively overcome his trouble once and for all.

Accordingly, all these various factors are taken into consideration in the scheme of treatment here outlined, and by their united aid it is confidently anticipated that every reader will be enabled—in the privacy of his or her own home, and without undue interference with daily routine—to undertake the immediate self-cure of any disease he or she may be suffering from.

It goes without saying that perseverance, self-control, and determination are essential if the results are to be secured; but in every case where the treatment is carried out regularly and assiduously, quick and definite improvement must follow. In all such cases a real and permanent cure is then only a matter of time. The remarkable successes achieved by the Health Advice Department of *Health for All*, whose work is based upon similar lines to those advocated here, are sufficient testimony to this.

The various dietetic and health-building measures which together comprise the complete Guide to Health, and from which the treatments for each of the diseases dealt with are taken, will be found outlined in detail further on in the Appendix; but before proceeding with their actual delineation, a word or two about each of these items is required if the reader is to obtain an accurate appreciation of the part they play in the curative process as a whole.

(1) *Short Fast Regime*

The value of fasting in the treatment of disease cannot be too strongly stressed. It is a curative measure of the greatest importance; for by ceasing to take food into the system the individual sufferer immediately opens up the way for Nature's most thorough and effective cleansing process—ELIMINATION.

It is by elimination that toxins and impurities which, as a result of many years of unwise feeding habits and wrong ways of living, have been clogging the tissues of the body and preventing proper functioning, are removed, and the way paved for new health and returning vitality.

Fasting is Nature's greatest curative agent; but at home it should not be undertaken for more than a few days at the most. Long fasts require expert personal supervision in case of complications or untoward occurrences.

The *Short Fast Regime* outlined herewith, if indicated in the treatment of any particular ailment, can easily be followed out in the home, and without any misgivings on the part of the sufferer as to the beneficial results that will follow. Its effect in many cases is little short of miraculous, when carried out in conjunction with the rest of the treatment given.

(2) *The All-Fruit Diet*

Next to the short fast, the *All-Fruit Diet* is Nature's finest eliminating medium. But whereas the effects of a prolonged fast are in many cases rather weakening, which means that a lengthy fast cannot usually be undertaken in conjunction with the daily work of the sufferer, the all-fruit diet can be carried on with for one or two weeks with little inconvenience by most people, and is therefore very often prescribed in place of its more rigorous rival, the fast.

The value of fresh, juicy fruits in the overcoming of all

diseased conditions, but especially chronic disease, by the cleansing of the tissues which takes place consequent upon the filling of the body with life-giving mineral salts, is incalculable, and in cases of bronchitis, rheumatism, chronic catarrh, constipation, etc., the curative effects are literally astonishing.

(3) *Fruit and Milk Diet*

Not so stringent as the *All-Fruit Diet*, the *Fruit and Milk Diet* is yet a wonderful body-cleansing and curative measure, and is designed to follow upon the all-fruit diet in cases where the adoption of a full and varied dietary is not yet deemed advisable. The value of milk as a body-building and nerve-restoring agent, when taken either alone or in conjunction with fresh fruits, cannot be too strongly emphasised.

(4) *Restricted Diet*

This serves the same purpose as the *All-Fruit Diet*, but by introducing raw salad vegetables and steamed green vegetables gives a variety to the dietary. In effect it is not quite so drastic as the *All-Fruit Diet*, and it is usually prescribed for those who have just completed a short fast prior to their commencing a properly selected diet such as the *Health Menus*.

(5) *Week's Health Menus*

The *Short Fast*, *Fruit Diet*, *Fruit and Milk Diet*, and *Restricted Diet* all play their part in ridding the system of impurities and toxic materials, and pave the way for the building up of the system which is to follow. It is here that the *Health Menus* are required. This specimen week's diet is based upon the soundest understanding of the art of

dietetics, and its value in aiding the individual to gain and subsequently maintain radiant health has been proved in numberless cases which have come under natural treatment.

The more strictly the *Health Menus* are adhered to, not only by sufferers from disease when indicated in the treatment, but by all who wish for sound, virile bodies, the better.

(6) *When and What to Drink and Why*

When to drink and what to drink are questions which have to be solved if the dietetic treatment of disease is to be carried out successfully, and the instructions as to drinking given under this heading in the *Appendix*, should be carefully studied and followed out by all desirous of achieving the best results from the treatment.

(7) *Constipation and its Cure*

The prevalence of constipation throughout the world at the present time is a mighty, outspoken testimony to the food folly of civilised people. To attempt to cure it by means of drugs, purges, and the like is only another indication of the futility of orthodox medical science with regard to the effective treatment of disease.

Under *Constipation and its Cure* is outlined a simple method which, if carried out faithfully by the sufferer, will soon induce proper bowel action even in the most obstinate cases, providing, of course, proper dietetic and other measures are employed at the same time.

(8) *The Use of the Enema or Gravity Douche*

It is absolutely essential for the maintenance of health that there should be at least one good *natural* bowel movement every day; but in those people who are habitually constipated

and have used laxatives over a considerable period, it is impossible to obtain a natural movement when they first come under Nature Cure treatment.

In these cases therefore the bowels need to be washed out *at first* by means of the "warm water enema" or "gravity douche" until their normal activity is restored by the general toning up that they receive during the course of natural treatment. The particulars and instructions given under this heading are intended therefore to help readers who are in the position indicated above.

Remember that laxatives and purgatives of any sort tend to paralyse the action of the bowels, and in time produce extremely harmful results.

Remember that the enema or douche is intended for use only during the *first part* of the treatment, and should be discontinued when natural bowel activity begins to return.

(In wartime enemas are difficult to obtain owing to the rubber shortage. Some chemists may be fortunate in having a "Fountain Syringe" in stock, but the Gravity Douche which we recommend is not being manufactured during the war.)

(9) *Dry Friction*

The proper care of the skin in all cases of disease is absolutely essential. The skin is one of the media through which the body eliminates waste matter and impurities, and unless looked after thoroughly, it cannot perform its allotted task. Hence the morning *Dry Friction* must not be overlooked by anyone who has his bodily welfare at heart.

(10) *Sitz-Bath*

The *Cold Sitz-Bath* is a curative measure of the highest importance, and is quite easily carried out in the home. It is usually only advised for those under middle-age, and,

where indicated in the treatment, cannot fail to have the most beneficial results.

(11) *The Cold Sponge*

This is advocated for all those unable (for various reasons) to make use of the morning sitz-bath, or are too old for the latter; and is a part of the daily toilet which, if once adopted, is never readily departed from.

(12) *Remedial Exercises*

The need for proper exercise in every case of disease, where possible, is obvious to all who understand the part played by the various structures of the body in maintaining the health of the whole. And the exercises here given will be found of the greatest value and curative benefit, especially in cases where constipation or a relaxed condition of the internal organs is present.

(13) *Breathing Exercises*

Proper breathing is absolutely essential if health is really desired, especially in cases where catarrh, chest troubles, and the like, are experienced. The exercises given under this heading should be gone through religiously by all who value their future health, when indicated in the treatment.

(14) *Epsom Salts Baths*

These baths exercise a great remedial effect by neutralising the acid waste materials present in the tissues of all sufferers from disease, more especially in the case of uric-acid and catarrhal conditions such as rheumatism, neuritis, sciatica, lumbago, catarrh, bronchitis, etc.

Once a week they should be taken by everyone, no matter what the complaint.

(15) *Special Mental Tonic*

The psychological side cannot be overlooked when disease is to be overcome effectively, and the wording of the *Special Mental Tonic* outlined in the *Appendix* is so designed that its effect upon the mind of the sufferer is immediate and gripping. If its advice is taken to heart, the cure of any disease—no matter what it may be and of what standing—must inevitably be assisted.

(1) SHORT FAST REGIME

The *Short Fast* should be undertaken as follows:

When you rise in the morning, you should take no food. All you may have is the juice of an orange (in a glass of warm water, if you prefer it) once every two hours from 8 a. m. to 8 p.m. **NOTHING ELSE WHATEVER** may be taken, otherwise you might just as well continue with your ordinary food, as the value of the fast will be lost entirely.

EACH DAY, WHILE FASTING, you should see that the bowels are cleansed of the effect and poisonous matter thrown off by the self-cleansing process now being set up by the body. This is **MOST IMPORTANT**, for, if omitted the body will reabsorb the poisons, and your fast will have been more or less in vain. (A Gravity Douche is the best appliance to use for the purpose in question, but an ordinary enema will do, if capable of being self-applied.)

SYMPTOMS WHICH MAY ARISE DURING FASTING, BUT NEED CAUSE NO. ALARM

Slight Fever. If this makes itself felt, a little warm water may be drunk.

Dizziness, Headache, Faintness, Insomnia, Palpitation. If any of these symptoms appear, they will pass off as the fast

progresses, and undue importance need not be attached to any of them.

Coated Tongue and Bad Taste. Both these are very common symptoms, and are indications that the work of cleansing the tissues of accumulated toxins is progressing.

DIET AFTER THE FAST

When you break your fast, after three or four days, you should take *milk* (fresh, unboiled), *only*, for a whole day, having half a pint at two-hourly intervals during the day. The next day you should have the following food at five-hourly intervals:—

Breakfast: Juice of two oranges, grapes and an apple (well masticated).

Mid-day: Salad of lettuce, watercress, tomatoes, mustard and cress, grated carrot. (Dress with olive oil and lemon juice.)

Wholewheat toast (cold) with butter. A pear or an apple.

Evening Meal: Steamed cabbage (Brussels sprouts, savoy, spring greens, etc.) and carrots; with stewed prunes, figs, or raisins as a second course.

After these two days you should take food in accordance with the suggestions contained in the treatment chart for the disease from which you are suffering.

(2) THE ALL-FRUIT DIET

When on the *All-Fruit Diet*, you should have three meals a day of fresh, *ripe*, juicy fruits, such as apples, pears, grapes, oranges, grape-fruit, pineapple, peaches, melon, or any other juicy fruit in season, but *no bananas AND NO OTHER FOOD-STUFF WHATSOEVER*.

For drinks, lemon water unsweetened or water, either hot or cold, may be taken.

(If any food—bread or anything else—is taken with the fruit meals, the whole of the value of the treatment will be lost.)

(3) THE FRUIT AND MILK DIET

For the *Fruit and Milk Diet* the meals are the same as above with the addition of a large glass of *cold fresh* milk at each meal (about two pints, roughly, each day).

[In certain instances where indicated in the treatment chart, the *fruit and Milk Diet* can include up to four or even six pints of milk daily, with the fruit meals; in these cases the milk is taken between meals, as well as at meal-times.]

(4) RESTRICTED DIET

The following diet, when indicated in the TREATMENT CHART, should be followed out for up to fourteen days:

Morning: Oranges or orange and lemon juice, or grapefruit.

Mid-day: Salad (raw) composed of any of the vegetables in season, attractively prepared. Dressing should consist of olive oil and lemon juice. *No vinegar.* *Dessert:* Raisins, prunes (soaked), figs, or dates.

Evening: Raw salad, or

One or two vegetables steamed in their own juices, such as spinach, cabbage, cauliflower, carrots, turnips.

Finish the evening meal with a few nuts or some sweet fruit, such as apples, pears, plums, or cherries.

NOTE:—If bread or any similar starchy food is taken, the effect of the diet will be lost. Nothing should be added to the above diet if good results are desired. No drinks, other than water, should be taken.

With regard to quantity, let your hunger be the guide.

(5) A WEEK'S HEALTH MENUS

FIRST DAY

Breakfast: An orange, a few dates, and a glass of milk.

Lunch: Large raw salad of lettuce, tomatoes, cucumber, or as many green vegetables as desired; dress with olive oil and lemon juice, but never with vinegar. Whole-wheat bread and butter. A few steamed black figs.

Dinner: Steamed spinach with poached egg, creamed carrots, baked potato in jacket. If desired, salad can be eaten with this meal.

SECOND DAY

Breakfast: Grape-fruit, a few raisins, one apple, a glass of milk.

Lunch: Lettuce, cabbage, and celery salad. Olive oil and lemon juice dressing. Wholewheat toast, butter. Grapes or an apple.

Dinner: Lamb or mutton chop; or nut cutlets, with two steamed vegetables. Stewed fruit.

THIRD DAY

Breakfast: Dish of soaked black figs (or prunes) and an apple.

Lunch: Raw vegetable salad, cottage cheese, wholewheat bread and butter. A few raisins or dates.

Dinner: Vegetable soup, fair serving of steamed fish, steamed celery and spinach or equivalents.

FOURTH DAY

Breakfast: Soaked raisins, an orange, and a glass of milk.

Lunch: Salad of lettuce, cabbage, tomatoes, and apples, with chopped dates and seedless raisins. Dressing of

honey, olive oil, and lemon juice. Wholewheat toast and butter. A pear.

Dinner: Buttered cauliflower sprinkled with groundnuts. Baked potato in jacket, steamed carrots.

FIFTH DAY

Breakfast: Mixed fresh fruit salad. Glass of milk.

Lunch: Lettuce, celery, banana, and date salad. Ground nuts. Wholewheat bread and butter.

Dinner: Chicken, two or three steamed vegetables. Fruit.

SIXTH DAY

Breakfast: Half a grape-fruit, grapes, and an apple.

Lunch: Poached egg on steamed spinach. Baked potato in jacket, steamed greens.

Dinner: Purée of vegetables. Salad and dressing. Cottage cheese, wholewheat bread and butter.

SEVENTH DAY

Breakfast: Juice of two oranges, grapes, and an apple.

Lunch: Salad of lettuce, endive, grated carrot, and beetroot. Cheese. Stewed raisins.

Dinner: Nut cutlets or poached egg, stewed onions, steamed leeks. Fresh fruit salad.

(*Special Note:* The mid-day and evening meals of the menus may be reversed as desired. Those much underweight may take milk each morning with the breakfast meal if wished, unless subject to catarrh, bronchitis, or asthma. Use only olive oil and lemon juice as dressing for salads; no vinegar or salad creams, etc. Avoid sugar, condiments, sauces, and seasonings. Use honey or Barbados sugar for sweetening stewed fruit. Always *steam* vegetables, or cook

them in a casserole. Have *unpasteurised* milk cold or just slightly warmed. For winter salads the following may be used, if necessary: cabbage, savoy, sprouts, turnip, onion raw beetroot, raw carrot, etc. These should be finely grated or shredded as the case may be, and together make an attractive and economical winter salad.)

(6) WHEN AND WHAT TO DRINK AND WHY

Drinking with meals should always be avoided, as it has a harmful effect upon the digestive processes through the dilution of the gastric juices which takes place.

Always drink at least *half an hour* before a meal, or *three hours* after.

A glass of hot water, or fruit juices diluted with water, on rising or before retiring, will be found very helpful in cleansing the body of waste matter and toxins, and would be especially beneficial in conjunction with the natural treatment you are now undergoing.

The best drinks are: WATER (hot or cold); and FRUIT AND VEGETABLE JUICES (either with or without water). (The liquor in which vegetables have been cooked makes a most healthful drink, providing no soda or salt has been used in the cooking process. Marmite or Yeastrel may be added to flavour the vegetable liquor.)

MILK is *not* a drink, but a food, and is best taken in conjunction with fruit.

Strong TEA and COFFEE should be carefully avoided, but a weak cup of China Tea *without* sugar, taken in the afternoon, will do no harm.

The desire for excessive drinking, should always be regarded as a sign of disturbance of function—of a diseased condition.

Never drink because you think you ought to, but when you really want to do so. On a diet such as is being prescribed for you, very little drinking will be found necessary, as most of the food is already in a very diluted condition; for all natural uncooked foods contain a large percentage of water in their composition.

(7) CONSTIPATION AND ITS CURE

When we realise that constipation is due to a relaxed condition of the muscular structure of the colon and intestines brought about by a diet of refined and unnatural foods or inattention to the body's demands, we know that the only logical way in which the condition may be overcome is by restoring power to the essential muscles.

The condition of the eliminatory musculature in the constipated person is exactly similar to that which is seen, say, in the arm of a person who, because it has been broken, has had it in a sling for some weeks. The muscles of the arm will be found to have relaxed to such an extent that its owner will be unable to make it perform its normal functions. He must exercise it gradually and in time normality will be regained.

Therefore, in order to restore normal muscular tone to the eliminatory musculature, it is quite apparent that we must exercise it. The best way in which this process may be carried out is by the following regime, once you have adopted a diet which provides sufficient bulk after digestion to stimulate the muscles of elimination to action.

As all muscular structure is kept in tone by actual use and is built up by exercise, you must exercise the muscles of elimination twice each day in the effort to build them up

to normal. Under no circumstances should purgatives or aids to enforcing bowel action be used.

TO SUCCEED, YOU MUST REGARD THE FOLLOWING AS A MOST
IMPORTANT RITE

On two occasions every day, say at 9 a.m. and 7 p.m., you should attend stool, and make an effort to evacuate the bowels, whether the impulse to do so is present or not. On each occasion you should try to obtain a natural movement, but *without undue strain*. In this way you will be exercising the muscles and gradually building them up to normal activity and usefulness.

Let it be understood that results will not follow immediately. It will all depend upon the degree of relaxation of the muscles how long it will be before successful results ensue. However, the attempt will be quite successful in time, in every case, if persevered with; and when once the bowels have been made to move naturally, it will be found that they will respond with increasing frequency as the regular efforts are pursued. Ultimately, two regular daily movements will be obtained.

It must be emphasised that the diet must be kept right, and the daily regular efforts never relaxed, except for the most compelling reasons. In this way only lies success.

As instructed in the various treatments, the enema or douche should be used at first to cleanse the bowels, until they begin to function normally of their own accord, as the result of the directions given above.

(8) THE USE OF THE ENEMA OR GRAVITY
DOUCHE

The procedure for use of the enema or gravity douche is as follows:

Fill the container with water at a temperature of about 98 degrees Fahrenheit—body heat; this can be tested by means of a small thermometer. Next, well grease the nozzle with either vaseline or olive oil. Place the container on a suitable hook about four to six feet above the ground, and lie on your back on the floor—on a sheet or cloth; then, insert the nozzle into the rectum. First allow a small quantity of water to enter, to wash out that part of the bowel, and then let it out into a bowl placed beside you. After this insert the nozzle again and allow *all the water* in the container to enter the bowel. Keep it there for a few minutes, and then turn on your left side, then on your face, next on your right side, after that on to your face again, and lastly on to your hands and knees. Now let the water out altogether, and it will be found that the waste matter will either come away with the water, or a desire to empty the bowels will be felt shortly afterwards.

This is an absolutely harmless method of cleansing the system, and occupies no more than five minutes.

It should be practised *every evening* during the first week of the treatment as necessary, thence *every second evening* for a further fortnight, and *every third evening* thereafter until normal bowel activity returns. Never use it after that, unless there is any further tendency towards constipation.

(9) MORNING DRY FRICTION

Dry friction baths are a very superior means of exciting to great activity all the functional processes lying at or near the surface of the body. Activity of the pores of the skin is essential to the enjoyment of a high grade of health. If such a bath is taken regularly, one is assured of the possession of a healthy skin, as the pores are then sure to be active.

This bath can be taken with a rough, dry towel, although it is advisable to take it with a moderately soft bristle brush. If a brush is going to be used, the best way to test the bristles to see whether they are suitable for this purpose is to rub the brush over the back of the hand, and if the sensation is not unpleasant it can be depended upon for satisfactory use on the body—i.e., after one has become accustomed to the friction. Naturally the skin will be a little tender at first, but it will gradually become toughened. If a brush is used the procedure should be as follows.

Take the brush in one hand and begin with the face, neck, and chest. Then brush each arm, beginning at the wrist and brushing towards the shoulders. Now stoop and brush one foot, then the ankle and leg. Then do the other foot and leg, and next the hips and central portion of the body. Continue brushing each part until the skin is pink. Use the brush quickly back and forward on every part of the body. The whole process does not take very long—about a minute or so.

If a towel is used instead, it should be fairly rough, and the same process should be gone through as above explained. (Note: Elderly people and those with weak hearts should be careful in carrying out the foregoing. It is not advisable for patients such as these to carry out the dry friction too strenuously.)

(10) THE COLD SITZ-BATH

This bath is a very valuable aid in building vitality and increasing the general functional vigour. It is especially recommended for increasing the strength of the organs lying in the region of the hips. It increases the circulation in these parts very greatly, hardens and strengthens the tissues, and is an important adjunct to the building of nervous vigour.

and sexual strength. It has a decidedly strengthening effect upon the entire sexual organism, and it greatly assists in influencing the regular movement of the bowels.

There are bath-tubs made especially for taking a sitz-bath, but an ordinary bath can be used just as well. The procedure is as follows.

Fill an ordinary bath-tub with cold water about four inches deep, and sit in it so that the seat, the feet, and the sexual organs are for the most part in the water. Only the seat and feet touch the bottom of the tub, while the knees are always above the water.

The knees are now spread apart and the water is vigorously dashed over the abdomen with the hollow of the hand. The throwing of the water is followed by a brisk rubbing of the abdomen with both hands. After this process has been carried on for a while, all the parts immersed in the water (except the actual sex organs themselves) should be rubbed vigorously with the open hand. Then dry with a rough towel. (When you become stronger, however, the rubbing-dry process should be carried out with the hands. This is in itself a good exercise and improves the condition of the skin.)

The whole process should take about two or three minutes and its duration should be gradually increased as you become more accustomed to it. If you feel warm after the sitz-bath, you can usually be sure you have not overdone it. (Note: The sitz-bath may be taken somewhat tepid in cold weather if necessary. People with weak hearts and elderly people generally are not advised to have the sitz-bath.)

(11) THE COLD SPONGE

An alternative to the morning sitz-bath is the cold sponge, which should be taken as follows:

Wring a towel in cold water, and rub the whole body in the same manner as described in the Friction Bath. If, during the process of rubbing, the towel becomes too dry, it should be wrung out again. (Note: Elderly people may have the sponge tepid in cold weather, or generally, if wished, according to their constitution. This applies also to those with weak hearts. These latter should do everything with caution.)

(12) REMEDIAL EXERCISES

The following set of exercises should be undertaken every morning in conjunction with the daily Dry Friction and Sitz-Bath or Cold Sponge:—

Exercise No. 1. Position: Sit upright in a chair, the arms stretched to the back as in the heavy-lined illustration herewith.



Movement: (a) Draw the left knee up, grasp the leg below the knee, pulling it well to the chest as shown in diagram, inhaling.

Movement: (b) Return to original position, exhaling.

Movement: (c) Repeat same movement with right leg, thus completing the exercise once.

Repeat the whole exercise until slight feeling of fatigue is experienced.

Exercise No. 2. Position: Sit in a chair, legs together, and grasp the back of the chair with hands, as in heavy-lined illustration.



Movement: (a) Stretch the body, straightening the arms and hollowing the back as shown in diagram, inhaling.

Movement: (b) Return to original position, exhaling, thus completing the exercise once.

Repeat the whole exercise until slight feeling of fatigue is experienced.

Exercise No. 3. Position: Lie flat on the floor, face downwards, arms outstretched beyond head, as in heavy-lined illustration.



Movement : (a) Raise legs, arms, head, and chest simultaneously, bending-in the small of the back as shown in diagram, inhaling.

Movement : (b) Return to original position, exhaling, thus completing the exercise once.

Repeat the whole exercise until slight feeling of fatigue is experienced.

Exercise No. 4. Position : Lie flat on the floor, legs together, and hands interlaced under head, as in heavy lined illustration.



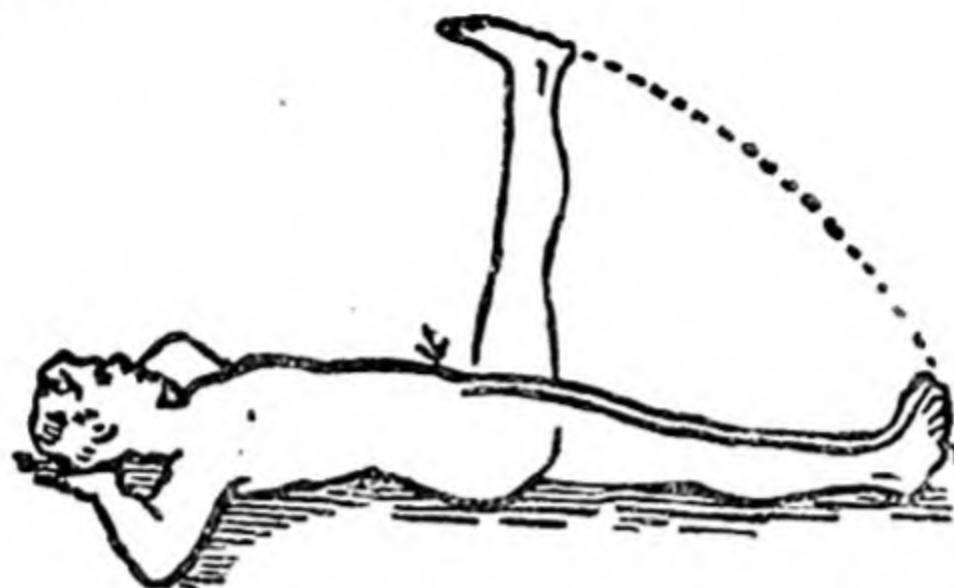
Movement : (a) Keeping the left leg straight, raise it to the position shown in diagram, exhaling.

Movement : (b) Return to original position, inhaling.

Movement : (c) Repeat same movement with right leg, thus completing the exercise once.

Repeat the whole exercise until slight feeling of fatigue is experienced.

Exercise No. 5. Position: Lie flat on the floor, legs together, and arms crossed on chest, as in heavy-lined illustration.



Movement: (a) Rise to a sitting position, and bend body as far forward as possible without bending the knees as shown in diagram, exhaling.

Movement: (b) Return to original position, inhaling, thus completing the exercise once.

Repeat the whole exercise until slight feeling of fatigue is experienced. (Note: Those who are unable to carry out the complete series of exercises at first, should begin with one or two of the easiest, and increase gradually in number and duration, as they feel able to.)

(13) DEEP-BREATHING EXERCISES

The following deep-breathing exercises are intended especially to develop greater lung capacity, and to assist in forming the habit of deep breathing properly at all times.

The different movements should be repeated from six to ten times according to the endurance and the amount of time at disposal.

Exercises:

(1) Jerk the shoulders forward in several separate movements, inhaling more deeply at each forward jerk. Exhale

slowly, bringing the shoulders back to original position.

Reverse the exercise, jerking the shoulders backwards in similar manner while inhaling. Alternate the movement, forcing the shoulders forward, then backward.

(2) Stand erect, arms at side. Inhale, raising the arms forward and upward until the palms touch above the head, at the same time rising on the toes as high as possible. Exhale, lowering the toes, bringing the hands downwards in a wide circle until the palms touch the thighs.

(3) Stand erect, hands on hips. Inhale slowly and deeply, raising the shoulders as high as possible, then with a jerk drop them as low as possible, letting the breath escape slowly.

(4) Stand erect, hands at shoulders. Inhale, raising elbows sideways; exhale, bringing elbows down so as to strike the sides vigorously.

(5) Inhale deeply, then exhale slowly, at the same time clapping the chest with the palms of the hands, covering the entire surface.

(6) To stimulate the action of the diaphragm:

Lie flat on floor or mattress, the head unsupported. Relax the muscles all over the body, then inhale deeply using the diaphragm only, raising the wall of the abdomen just below the ribs without elevating either the chest or the lower abdomen. Take about four seconds to inhale, then exhale in twice that length of time, contracting the abdomen below the ribs.

(7) As often as possible during the day, especially when in the open or when walking, fill your lungs to the fullest extent as many times as possible. A correct full breath should be taken in the following manner:

Draw in all the breath you can through the nose, allowing the expansion to commence in the abdominal region, and gradually ascend to the chest. After you have drawn in all the breath you can, hold it for a moment, and try to inhale another breath, and following this, exhale fully. Repeat this exercise until a slight feeling of fatigue ensues. (Note : Those who are unable to carry out the whole of the foregoing exercises at first, should begin with one or two exercises, and gradually increase in number and duration as they improve in strength.)

(14) EPSOM SALTS BATHS

In all diseased conditions acid waste products are always present in the tissues, and by effectively neutralising these, the *Epsom Salts Bath* provides one of the simplest home remedies, in conjunction with the rest of the various measures comprising the natural treatment of disease, for alleviating this excessively acid condition. It is especially effective in cases such as rheumatism, sciatica, lumbago, neuritis, catarrh, colds, or other catarrhal and uric-acid affections.

It is prepared as follows :

Dissolve from two to three pounds of *commercial* Epsom Salts in an ordinary bath of hot water. Remain immersed in the bath from ten to twenty minutes.

This bath should be taken just before retiring to bed, and care should be exercised not to get chilled afterwards.

WARTIME NOTE.—During wartime the use of Epsom Salts for baths and packs is not allowed, and so recourse should be made to ordinary soda, using up to 1 lb. of soda for a bath.

Wherever Epsom Salts Baths are indicated in the Treatment Chart, at least one ordinary hot cleansing bath should be taken as well every week. Never use soap with the Epsom Salts Bath, as this interferes with its beneficial effects. (Note: Elderly people and those suffering from weak hearts are not advised to have Epsom Salts Baths, as a general rule, although some elderly people can stand them all right. In these cases the baths should only be taken comfortably hot; never *very hot*.)

(15) SPECIAL MENTAL TONIC

The following should be read, preferably just before retiring at least three times every week:

Worry is a curse to everyone who cannot fight it, more especially to a sick person whose lowered vitality and gloomy outlook do not permit of a very strenuous fight. Try from now onwards to get rid of the worry habit, for there is no good to be obtained from harbouring this evil influence, and you are only keeping yourself back by giving in to it.

Worry weakens the will-power, saps the nerve force, and unsteadies thought-power, and after all, what is worry but a phantom? Worry is not a real thing at all, but just an imaginary demon that lurks around to look real if you allow yourself to become scared of it. For the future you are going to take the lead and keep worry in its proper place. The best shield against the worry habit is plenty of courage, pluck, and faith in what you are doing.

FAITH IN YOURSELF is sudden death to the worry demon. Stand up and say, "I will win through this crisis," and "I am going to get well." "I *am* well!" Picture yourself as being really fit and well—fit for anything—without a worry or care in the world, and tell yourself repeatedly that

you ARE well. Stick to these sentiments, and you will find that worry will crawl away into its cave of darkness. Repeat those words to yourself every day in case you are tempted to let things slide. It is not humbug, but real, helpful auto-suggestion, which will work wonders if you practise it.

Try to cultivate happy thoughts at all times, for the mind, properly directed, has a very wonderful healing influence on the body and health generally. On the other hand, if thought is wrongly directed, it plays havoc with both mind and body. If you met twenty of your friends to-morrow, and each in turn remarked that you were looking ill, I will wager that before the day was done you would not only look, but feel really ill. Such is the power of suggestion. You can produce the same result more readily by similar thoughts originating in your own mind. "As a man thinketh in his heart, so is he." Be warned therefore and do not dwell upon morbid thoughts, when happy, helpful ones are just as easily cultivated.

This is a good way to look at it. You cannot think of two things at once. Therefore if you think faith, courage, success, joy, health, you cannot think worry thoughts. Have you ever noticed how a sudden shock of bad news or even joyful news will sometimes take away your appetite? This shows thought improperly directed, and is a simple instance of the powerful influence of your mind over your physical being.

When you are inclined to worry, collect all the facts together and sift them out. Cross-examine yourself and see if there is any real good to be got out of the worry; then you will soon see the futility of it all. It is quite possible that you will not be successful in your first attempt, but with a little practice and perseverance you will soon be able

to stiffen your back and win against every attack. Keep the following little motto in one of the front recesses of your brain, and mentally rehearse it each night before you go to sleep, and again next morning before you rise. "Be pleasant and happy every morning until ten o'clock; the rest of the day will take care of itself." There is a world of truth in this motto; try it and see.

Again, always take pleasant and happy thoughts to bed with you because you shape and build your character and will-power when you are asleep. Your dominant thought when you fall asleep will work in your subconscious mind during the night, and if it is cheerful and hopeful, you will awaken cheerful, strong, and resolute to begin a new day. Before you sleep, close your eyes and visualise the following: See yourself a happy and healthy being; see yourself as you wish to be. Get the picture clear and vivid, then go to sleep with those thoughts and visions uppermost in your brain.

Make habits partners in your business to get back to fitness, but be sure they are good habits. Get rid of the bad habits. The easiest and most effective way of destroying bad habits is by counteraction, that is, by setting up a habit of contrary character. For example, you cannot overcome the habit of happiness. Get a smile in your conversation, a smile in your work. Smile when you feel down and out, smile when the blues are attacking you; radiate smiles and happiness because they are infectious. Back up your chance with a determination that you will not have failure at any price. You know very well there have been times in your life when you could have tried harder and got better results. You could have made a greater and better success of things than you did. Always aim high,

and do not be content with petty things. Above all, watch your weak points and don't sideslip or get into a "don't care" frame of mind. Weak points unguarded have been the ruin of many brave but weak men. Everything is worth as much as your neighbour's.

Beware of superficial enjoyment, and of the "good time" that sacrifices self-respect—that has a bad reaction and makes you despise yourself afterwards.

It is Nature's law that you must pay the full price for everything you take out of life. So watch yourself lest you become a spendthrift. Never mind what the past has been; look to the future. The past is dead and gone. "The mill can never grind with the water that has passed." It is what you are capable of doing now that matters, and you are capable of big things yet, if you will only put your shoulder to the wheel and push with all your might.

Don't worry, don't fret, don't anticipate evil, don't fear anything, for there is nothing to fear, fret, or worry over, if you only have faith in yourself to come through. Hold your head high, look the world in the face without a tremor, and fight the good fight. Victory will be yours yet!

The purpose of this little heart-to-heart talk is to make you feel that there is something worth while in life for you still, and to help you to find sunshine and health in your present shadowland. There is a great deal more in what has been said here than you can realise by a casual glance. The sentiments are based on a life-long experience that is helping thousands of men and women back to LIFE from mere existence. Each sentiment is a fact, and facts are not easily subdued. Read them well, read them often, live up to them, live by them, live in them. Let everybody you meet know

there is something in you that is not for sale. Let that something be a cheerful outlook and a determination to win over obstacles.

CHART OF TREATMENT FOR COMMON AILMENTS

In the following chart is outlined the complete dietetic and other home treatment for all the more common ailments and diseases, designed in such a manner as to be easily carried out by all, and with little, if any, interference with the daily routine.

Obviously, each reader desirous of following out any of the various treatments indicated will have to adapt the same to meet the needs of his environment and circumstances; but in the main no difficulty should be experienced in arranging a daily regime of treatment capable of being carried out successfully by each and everyone, no matter how situated, providing the determination to get well at all costs is the actuating motive.

Needless to say, factors such as worry, fear, nervous tension and excitement, sexual and other excesses, overwork and the like, all mitigate against a speedy recovery, no matter what the disease in question might be, and by causing enervation and exhaustion are, next to wrong feeding, the chief predisposing cause towards ill-health. That they be guarded against or overcome as the case may be, must surely be clear to all desirous of regaining health and vigour.

The value of fresh air and outdoor exercise in every case of impaired health and lowered vitality cannot be too strongly emphasised, whilst the need for proper relaxation and sufficient rest or sleep is just as great.

These various factors and considerations, although lying outside the actual field covered by the *Treatment Chart* here given, must never be lost sight of by those who are anxious to get the best out of the various treatments indicated.

Spinal manipulation, by toning-up the system generally and removing interferences with the blood and nerve supply to affected parts, is of extreme value in every case of disease, no matter what the actual trouble might be, and can be fully recommended to every reader able to obtain it. Where procured, it should of course be carried out in conjunction with the treatment for the particular disease in question, as outlined on the chart.

SELF-TREATMENT CHART

TREATMENT

DIETETIC

GENERAL

CHART OF TREATMENT FOR COMMON AILMENTS

151

Disease

Anæmia (also Leucorrhœa).	Up to a week on all-fruit diet followed by two to three weeks on fruit and milk diet. (Commence with two pints of milk daily and gradually increase to four or more pints). Then Health Menus.	Use of enema or douche till normal bowel action returns. <i>Every morning:</i> Dry Friction, Sitz-Bath, Remedial Exercises, Breathing Exercises. (The latter should be gone through evenings also.) Hot Epsom Salts Bath twice weekly. (<i>Hot water should be sipped whenever an asthmatic attack seems to be coming on.</i>)
Asthma.	Short Fast Regime followed by ten to fourteen days on Restricted Diet, then Health Menus. (Short Fast and Restricted Diet should be repeated at intervals of two months, as necessary, for the time being.)	Use of enema or douche till normal bowel action returns. <i>Every morning:</i> Dry Friction, Cold Sponge, Remedial Exercises, Breathing Exercises. (The latter should be gone through evenings also.) Hot Epsom Salts Bath twice weekly. Cold packs nightly to chest. Fresh air and outdoor exercise essential. (Spinal manipulation recommended.)
Arterio-Sclerosis.	Seven to ten days on all-fruit diet, then Health Menus. Two or three days on all-fruit diet every four weeks from time Health Menus are commenced.	Use of enema or douche till normal bowel action returns. <i>Every morning:</i> Dry Friction, Cold Sponge, Remedial Exercises. Hot Epsom Salts Bath twice weekly.

SELF-TREATMENT CHART—Continued

TREATMENT		DIETETIC	GENERAL
Disease			
Bladder Disorders, Prostate Enlargement, etc.	Same treatment as given for Colitis.		
Blood Pressure (High).	Treatment same as for Arterio-Sclerosis.		
Bright's Disease (Kidney Disease).	Short Fast Regime. Then fruit and milk diet for two to four weeks. (Further fasts and periods on fruits and milk if necessary.) Then Health Menus. (Personal naturopathic attention desirable in all cases.)	Use of enema or douche till normal bowel action returns. <i>Every morning:</i> Dry Friction, Sitz-Bath, Remedial Exercises. Hot Epsom Salts Bath twice weekly. (Spinal manipulation advisable.)	
Bronchitis (Acute).	Complete fast till acute symptoms have disappeared, then all-fruit diet.	Use of enema twice daily. Cold packs to chest.	
Bronchitis (Chronic).	Short Fast Regime followed by ten to fourteen days on the Restricted Diet. Then Health Menus. (Further periods on Short Fast and Restricted Diet at intervals if necessary.)	Use of enema or douche till normal bowel action returns. <i>Every morning:</i> Dry Friction, Cold Sponge or Sitz-Bath (according to age), Remedial Exercises, Breathing Exercises. (The latter evenings also.) Hot Epsom Salts Bath twice weekly. As much fresh air and outdoor exercise as possible. Cold packs to chest.	

Catarrh (Chronic).	Five to seven, ten, or fourteen days on all-fruit diet. Then Health Menus. Occasional shorter periods on all-fruit diet from time to time.	Use of enema or douche till normal bowel action returns. <i>Every morning:</i> Dry Friction, Sitz-Bath or Cold Sponge (according to age), Remedial Exercises. Breathing Exercises. Hot Epsom Salts Bath twice weekly for one month, once weekly from then on. Fresh air and outdoor exercise essential.
* Colitis.	Short Fast Regime followed by ten to fourteen days on Restricted Diet. Health Menus. Further periods on Short Fast and Restricted Diet if necessary.	Use of enema or douche till normal bowel action returns. <i>Every morning:</i> Dry Friction, Sitz-Bath, Remedial Exercises. Hot Epsom Salts Bath twice weekly. Hot and Cold Sitz-Bath four nights weekly.
Constipation (Chronic).	Seven to fourteen days on all-fruit diet, then Health Menus. Occasional shorter periods on all-fruit diet if necessary.	Use of enema or douche till normal bowel action begins. Advice given under "Constipation and its Cure" to be carried out. <i>Every morning:</i> Dry Friction, Sitz-Bath, Remedial Exercises. Hot Epsom Salts Bath once weekly. Fresh air and outdoor exercise essential.
Colds (Acute).	Twenty-four to thirty-six hours fast on orange juice. Then two or three days' all-fruit diet.	Use of enema. Hot Epsom Salts Bath.

* *Special Note:* See remarks at the end of *Treatment Chart re Colitis.*

TREATMENT
DIETETIC

Disease	GENERAL
Colds (Habitual).	Same treatment as for Catarrh.
Diabetes.	In early stages Short Fast Use of enema or douche till normal bowel action returns. <i>Every morning:</i> Dry Friction, Cold Sponge, Remedial Exercises. Beneficial, if no insulin taken. Individual naturopathic advice essential in all cases, however.
Diarrhea.	Twenty-four to thirty-six hours' fast on orange-juice. Then <i>milk diet</i> for as long as necessary.
Dyspepsia (Nervous).	Five to seven or ten days on all-fruit diet, followed by fruit and milk for a further week or two, taking up to four pints of milk daily. Then Health Menus. (Occasional further periods on fruit and fruit and milk, if necessary.)

Ear Troubles (Catarhai; Deafness, etc.):	Short Fast, ten to fourteen days on Restricted Diet, then Health Menus. (Further periods on Short Fast and Restricted Diet will be necessary at intervals.)	Use of enema or douche till normal bowel action returns. <i>Every morning:</i> Dry Friction, Cold Sponge, Remedial Exercise, Breathing Exercises. (The latter evenings also.) Fresh air and outdoor exercise essential. (Manipulative treatment strongly advised.) Hot Epsom Salts Bath twice weekly.
Eczema (also Psoriasis and Dermatitis):	Short Fast Regime. Ten to fourteen days on Restricted Diet. Then Health Menus. (Short Fast and Restricted Diet to be repeated at intervals as needed.)	Use of enema or douche till normal bowel action returns. <i>Every morning:</i> Dry Friction, Cold Sponge, Remedial Exercise. Hot Epsom Salts Bath <i>three times weekly</i> . Bathe affected areas <i>twice daily</i> with hot water containing Epsom Salts— $1/2$ lb. to a bowlful. The body should be exposed to fresh air and sunlight as much as possible.
Epilepsy.	Short Fast. Restricted Diet (fourteen days). T h e n Health Menus. R e p e a t Short Fast and Restricted Diet at intervals.	Use of enema or douche till normal bowel action returns. <i>Every morning:</i> Dry Friction, Sitz-Bath, Remedial Exercises. Hot Epsom Salts Bath twice weekly. Fresh air and outdoor exercise essential. (Manipulative treatment.)

Disease	TREATMENT	DIETETIC	GENERAL
Fever (Scarlet Fever, Smallpox, Typhoid, Diphtheria, Pneumonia, Measles, etc.).	<i>Fever of all kinds should be fasted completely till abated.</i> Then gradually go through all-fruit and fruit and milk diet to Health Menus.	Use of enema or douche twice weekly. Cold packs and cold sponges. (Personal naturopathic attention is desirable in every case.)	
Flatulence (also Heartburn).		See treatment for Indigestion.	
Gastritis (Acute).		Complete fast for two or three days. Then all-fruit diet till well again.	Use of enema twice daily.
Gastritis (Chronic).		See treatment for Indigestion (Chronic). See also remarks re treatment of <i>Colitis</i> , at end of <i>Treatment Chart</i> .	
Goitre (also Graves' Disease).	Short Fast. Restricted Diet (seven to fourteen days.) Then Health Menus. Further periods on Short Fast and Restricted Diet if necessary later.	Use of enema or douche till normal bowel action returns. <i>Every morning:</i> Dry Friction, Sitz-Bath, Remedial Exercises, Breathing Exercises. Hot Epsom Salts Bath twice weekly. Fresh air and outdoor exercises essential. Plenty of rest required.	

Gout.	Short Fast Regime followed by Restricted Diet for ten to fourteen days. Then Health Menus. Repeat. Short Fast and Restricted Diet at intervals of two months, if necessary.	Use of enema or douche until normal bowel action returns. <i>Every morning:</i> Dry Friction, Sitz-Bath, Remedial Exercises. Hot Epsom Salts Bath twice weekly. (Feet to be bathed night and morning in hot water containing Epsom Salts—$1/2$ lb. to a bowlful.) Massage feet with Olive Oil after Epsom Salts bathing.
Heart Disease.	One to three days on all-fruit diet each month, followed by further few days on fruit and milk. Then Health Menus.	Use of enema or douche until normal bowel action returns. <i>Every morning:</i> Dry Friction, Cold Sponge, Remedial Exercises (as far as possible). Fresh air and gentle outdoor exercise. (Personal naturopathic treatment desirable).
Indigestion (Acute).	Twenty-four hours' fast. Then all-fruit diet for two or three days.	Use of enema.
Indigestion (Chronic).	Five to seven days on all-fruit diet, followed by a week or longer on fruit and milk; or Short Fast Regime and ten to fourteen days on Restricted Diet. Health Menus. (Further periods on fruit and fruit and milk, or further fasts and periods on Restricted Diet at intervals, as necessary).	Use of enema or douche until normal bowel action returns. <i>Every morning:</i> Dry Friction, Sitz-Bath, or Cold Sponge (according to age), Remedial Exercises. Hot Epsom Salts Bath once weekly. Fresh air and outdoor exercise essential.

YOUR DIET—IN HEALTH AND DISEASE

Disease	TREATMENT	DIETETIC	GENERAL
Leanness.	Four or five days on all-fruit diet. Then fruit and milk diet for two or three weeks, beginning with two pints of milk daily and increasing to six or more. Then Health Menus, with one or two pints of milk added daily, if necessary. (Repeat fruit and fruit and milk diet once or twice at two-monthly intervals, if needed.)	Use of enema or douche till normal bowel action returns. <i>Every morning:</i> Dry Friction, Sitz-Bath, Remedial Breathing Exercises. Hot Epsom Salts Bath once weekly. As much fresh air and outdoor exercise as possible.	
Liver Disorders (Biliousness, Jaundice, etc.).	Seven to ten days on all-fruit diet, then Health Menus. (Two or three days on all-fruit diet every fortnight if necessary.)	Use of enema or douche. <i>Every morning:</i> Dry Friction, Sitz-Bath, Remedial Exercises. Hot Epsom Salts Bath weekly. Outdoor exercise essential.	
Lumbago.	See treatment for Rheumatism.		
Neurasthenia.	Five to seven days on all-fruit diet. Ten to fourteen days on fruit and milk diet, commencing with two pints daily and increasing to four or more. Then Health Menus. (Further periods on fruit and fruit and milk at intervals, as necessary.)	Use of enema or douche till normal bowel action returns. <i>Every morning:</i> Dry Friction, Sitz-Bath, Remedial Exercises, Breathing Exercises. Hot Epsom Salts Bath weekly. “Special Mental Tonic.” Fresh air and outdoor exercise. <i>Avoidance of all enervating habits or activities.</i> Rest essential.	

Neuritis.**See treatment for Rheumatism.**

Obesity.
Ten to fourteen days on all-fruit diet. Then Health Menu. (Two or three days on all-fruit diet every fortnight from then on.)

Use of enema or douche till normal bowel action returns.
Every morning: Dry Friction, Cold Sponge, Remedial Exercises.
Hot Epsom Salts Bath twice weekly.
As much fresh air and outdoor exercise as possible.

Piles.
See treatment for Constipation.

Use of enema or douche till normal bowel action returns.
(If Piles irritate, diluted lemon juice may be injected into the rectum.)

Pyorrhœa.
Short Fast. Restricted Diet ten to fourteen days. Health Menus.
Further periods on Short Fast and Restricted Diet at intervals, if necessary.

Use of enema or douche till normal bowel action returns.
Every morning: Dry Friction, Sitz-Bath, Remedial Exercises, Breathing Exercises.
Hot Epsom Salts Bath twice weekly.
Rinse mouth night and morning with diluted lemon juice.

Quinsy or Tonsilitis.
Fast until acute symptoms have disappeared. (Orange or pineapple juice may be taken every two hours.)
Then all-fruit diet.
Later fruit and milk.

Use of enema twice daily till acute symptoms have disappeared. (Cold packs to throat.
Hot Epsom Salts Bath.

SELF-TREATMENT CHART—Continued

TREATMENT

DIETETIC

GENERAL

Disease	TREATMENT	DISETIC	GENERAL
Rheumatism (and Arthritis).	Seven to ten or fourteen days on all-fruit diet. Then Health Menus. (Two or three days on all-fruit diet every month from then on.) <i>If severe,</i> Short Fast, fourteen days. Restricted Diet to begin with instead of all-fruit diet, with further fasts and periods on the Restricted Diet thereafter, at intervals, if necessary.	Use of enema or douche till normal bowel action returns. <i>Every morning:</i> Dry Friction, Cold Sponge, Remedial Exercises. Hot Epsom Salts Bath twice or three times weekly. As much fresh air and outdoor exercise as possible. Cold packs to painful areas.	
Sciatica.	Same as above.	Use of enema or douche till normal bowel action returns.	
Skin Diseases (Impetigo, Urticaria, Acne, Eruptions of all kinds, etc.).	Seven to ten or fourteen days on all-fruit diet, followed by period on fruit and milk if necessary, then Health Menus. (Occasional further short periods on all-fruit diet followed by fruit and milk from time to time if necessary.)	<i>Every morning:</i> Dry Friction, Cold Sponge, Remedial Exercises. Hot Epsom Salts Bath twice weekly. Fresh air and outdoor exercise essential. Affected parts to be bathed with hot water containing Epsom Salts (1/2 lb. to a bowlful), <i>twice daily.</i> Then apply some olive or almond oil. Exposure of skin to sunlight recommended.	
Tumours.	Short Fast. Restricted Diet (fourteen days). Then Health Menus. (Fast and Restricted Diet to be repeated at intervals if necessary.)	Use of enema or douche till normal bowel action returns. <i>Every morning:</i> Dry Friction, Cold Sponge, Remedial Exercises. Hot Epsom Salts Bath twice weekly. (Personal naturopathic attention advisable.)	

<p>* Ulcers (Gastric or Duodenal).</p> <p>Short Fast. Fruit and milk diet for two, three, or more weeks. Then Health Menus. Further Short Fasts and periods on the fruit and milk diet may be necessary in certain cases. (Personal naturopathic attention advised.)</p>	<p>Use of enema or douche till normal bowel action returns. <i>Every morning.</i> Dry Friction, Sitz-Bath, Remedial Exercises. Hot Epsom Salts Bath twice weekly. Fresh air and outdoor exercise essential. Manipulative treatment strongly recommended.</p>
<p>Varicose Veins.</p> <p>Seven to ten days on all-fruit diet. Then Health Menus. Further short periods on all-fruit diet from time to time.</p>	<p>Use of enema or douche till normal bowel action returns. <i>Every morning:</i> Dry Friction, Sitz-Bath, Remedial Exercises. Hot Epsom Salts Bath weekly. Cold packs nightly to affected parts. Fresh air and outdoor exercise essential. Recline with feet higher than rest of body <i>for half an hour</i> morning and afternoon if possible. (A half-day in bed occasionally in same position is very beneficial).</p>
<p>Worms (Threadworms, etc.)</p> <p>Seven to ten or fourteen days on all-fruit diet, followed by fruit and milk diet for a period. Then Health Menus. Further periods on all-fruit diet and fruit and milk diet later if necessary.</p>	<p>Use of enema or douche till normal bowel action returns. <i>Every morning:</i> Dry Friction, Sitz-Bath, Remedial Exercises. Hot Epsom Salts Bath twice weekly. A pinch of tobacco may be infused into the enema water.</p>

* *Special Note:* See also remarks re *Colitis* at the end of *Treatment Chart.*

Cold Packs—Cold packs are made by wringing out some linen or similar material in cold water, wrapping two or three times round the affected parts, and covering with warm flannelling.

Hot and Cold Sitz-Baths—The hot and cold sitz-bath is taken as follows:—Place two hip-baths side by side, the one containing about five inches of hot water, the other the same depth of cold. Then get into the hot sitz, stay in that for two minutes, then get out and immediately into the cold. Stay in that for one minute, then repeat two or three times in all.

Special Note—In every case where chronic constipation aggravates any given disease, the principles outlined under “Constipation and its Cure” should be put into practice. The “Special Mental Tonic” should be read by all, irrespective of the complaint, but more especially by those suffering from nervous disorders and depression.

If anyone already underweight should lose weight rapidly whilst on the all-fruit or restricted diet, the said diet may be supplemented by the addition of a glass of cold milk to each meal.

Sufferers from Colitis (also Chronic Gastritis and Stomach Ulcers) please note: When raw fruits and vegetables cannot be tolerated at all by the patient, it is best to begin the treatment with the Short Fast Regime for three or four days, then follow with an exclusively *milk diet* for a period, as follows: Begin with a glass of milk every two hours the first day, from 8 a.m. to 8 p.m., and increase to a glass every hour thereafter, and keep on with the milk diet for two to four weeks. Milk should be *fresh* and *unboiled*, but may be warmed. It should be sipped *very slowly*. Take nothing but the milk, except for the occasional juice of an orange, between the milk drinks, if this agrees all right. (If unable to take orange juice during the fast, have water only.) After the fast and milk diet begin the Health Menus, but taking stewed fruit and vegetable broth in place of fresh fruit and salads, at first. *Gradually* introduce these foods into the diet later, as you improve. (Further fasts and periods on the milk diet may be necessary, at intervals, in certain cases). It is also advisable to substitute for coarse wholewheat bread something less coarse such as crisply toasted *Turog* or *Daren* bread, or *Granose* biscuits or *Weetabix* until coarse wholewheat can be digested all right.

ADDITIONS TO APPENDIX FOR REVISED AND ENLARGED EDITION

A Week's Menus for Children

FIRST DAY

Breakfast : One apple, one orange, four or five dates, glass of milk.

Lunch : Steamed spinach (or other green vegetable), baked potato in skin; poached egg. *Dessert* : Baked apple.

Evening : Wholewheat bread and butter with lettuce, tomatoes, watercress, celery, etc. A few stewed prunes to follow if desired.

SECOND DAY

Breakfast : "Shredded Wheat" or "Force" with raisins and milk.

Midday : A selection of fresh fruits (apples, pears, grapes, or oranges, etc.), a sweet fruit (raisins, dates, or figs), and milk.

Evening : Wholewheat bread (or "Ryvita") and butter, with lettuce, tomatoes, watercress, celery, etc. Milk.

THIRD DAY

Breakfast : Two apples, one banana, milk.

Midday : A little chicken or lamb with one green vegetable and carrots or turnips. *Dessert* : Stewed fruit.

Evening : Wholewheat bread and butter with lettuce, tomatoes, grated raw carrot, or other salad-stuff. One or two black figs or a few dates.

FOURTH DAY

Breakfast : Grapes, prunes, milk.

Midday : Poached egg, one green vegetable, potato baked in skin. *Dessert* : Apple or pear.

Evening : Wholewheat bread (or "Ryvita") and butter, with salad-stuff as for previous days. *Ripe* banana.

FIFTH DAY

Breakfast : "Shredded Wheat" or "Force" with raisins and milk.

Midday : A selection of fresh fruits (apples, pears, grapes, oranges, etc.), a sweet fruit (dates, raisins, or figs), and milk.

Evening : Wholewheat bread and butter with raw salad-stuff, as for previous evenings. Milk.

SIXTH DAY

Breakfast : Half grape-fruit, apple, three or four black figs, milk.

Midday : Steamed fish, one green vegetable, carrots or turnips. *Dessert* : Baked apple.

Evening : Wholewheat bread (or "Ryvita") and butter, with lettuce, tomatoes, grated raw carrot, etc. *Ripe* banana.

SEVENTH DAY

Breakfast : One apple, one orange, one pear, glass of milk.

Midday : Nut cutlet or grated or cottage cheese, with one green vegetable, potato baked in skin. *Dessert* : Stewed prunes.

Evening : Wholewheat bread and butter with raw salad-stuff, as for previous evenings. A few nuts and raisins.

Some notes on the foregoing menus : Black figs are the best kind of figs to use, and can be obtained at any Health

Food Store. Use honey for stewing fruit, etc. Never boil milk or give it hot. It may be warmed slightly if wished and should be *unpasteurised*. Cream may be given two or three times weekly, if desired. A piece of good chocolate is permissible occasionally, and should be given with the evening meal, not between meals. A piece of *wholewheat* fruit cake is also permissible sometimes, after the evening meal, or a *wholewheat* scone and honey. Always *steam* vegetables, or cook them in a casserole.

Some Notes of Vitamins

Since the present book was first written much that was merely guessed at previously about *vitamins* has been verified by scientific investigation, and the importance of these "accessory food factors" in the diet of modern man has been made abundantly clear to all. It is still true to say that if diet along the lines laid down in this book is followed, the person in question need not worry about vitamins, for he will be securing all the vitamins his body needs from such a diet, but at the same time it is as well to make the reader understand clearly the part actually played by the vitamin in maintaining (and regulating) the health of the organism, and so the following notes are appended to the newly revised edition of this book, to make good this discrepancy in former editions.

Much that the public believes to be due to the action of vitamins is undoubtedly still ascribable to the presence of the organic mineral salts found in food, but vitamins have certain unique properties of their own, which modern scientific investigation has discovered, and which may be briefly tabulated as follows:

Vitamins were first discovered by Sir Frederic Cowland Hopkins (the English food scientist) about thirty years ago. They are chemical substances found in all natural foodstuffs. At least six different vitamins have been discovered, and there appear to be others not yet identified. For simplicity the vitamins are called A, B, C, D, and so on. If vitamins are withheld from food for a period of three to four months, then death is the sure result to the individual or individuals concerned. This proves that vitamins are *essential to life*, and *ALL* must be present in the diet for real health to be main-

tained. (One vitamin cannot be substituted for another, that is to say.)

Vitamins are present in very small quantities in food, and are very difficult to isolate. They may be removed from food by certain agencies, the chief being the *refining of foods* (as in the making of white flour, prepared cereals such as polished rice, pearl barley, refined oatmeal, etc.), and *in cooking*, as in cooking vegetables. Heating, ageing, and drying also have a deleterious effect upon the vitamin content of food.

Vitamins, or the substances from which they are derived, are formed primarily in plants, and vitamins present in animal tissues have come from plant food eaten by the animal in question. Thus vegetarians obtain their vitamins in a more direct manner than the person living on a mainly flesh food dietary.

Very few foodstuffs contain all the vitamins. Some are rich in one vitamin, others in another, usually, but many foods contain two or three vitamins, and milk, eggs, tomatoes, watercress and raw liver, are very rich in them. *Vitamin A* is found in all the animal fats except lard, and in green vegetables. *Vitamin B* (or B_1) is found chiefly in the seeds of plants, and in the eggs and internal organs of animals. *Vitamin B₂* (or *G*) is found in meat, and together with B_1 is present in yeast, wheat germ, and some other foods. *Vitamin C* is found in fresh fruits and vegetables. *Vitamin D* usually occurs associated with *Vitamin A* in animal fats, and in green vegetables. (The body can manufacture its own supply of *Vitamin D* from certain substances contained in food, through the agency of sunlight.) *Vitamin E*, like vitamins *A* and *D*, also occurs in animal fats, but is found as well in certain vegetable oils which do not contain any *vitamin A* or *D*.

Vitamin A and *Vitamin D* are both essential in promoting the resistance to disease of the organism, and an absence of *Vitamin A* from the diet leads to the development of an eye disease known as *xerophthalmia*, which, if unchecked, ends in complete blindness. *Vitamin D* regulates the calcium-phosphorus balance of the body (that is, its bone formation), and its absence from the diet is the chief predisposing factor in the development of *rickets*. (It is also of great importance in the maintenance of good teeth.)

Vitamin B (or *B₁*) is of importance in the regulation of the nervous tone of the organism, and is known as the *anti-neuritic* vitamin. Its absence from the diet is now considered the predisposing factor in the development of *beri-beri* and *poly-neuritis*, two grave diseases affecting the nervous tissues mainly. *Vitamin B* is also essential in regulating the tonicity of the digestive system, and its absence from the diet (even partially) leads to digestive troubles sooner or later, because of the deterioration in the condition of the digestive tract that ensues as a direct result. Absence of *Vitamin B₂* from the diet leads to the development of the disease known as *pellagra*. *Vitamin C* is essential for keeping the tissues of the body clean and wholesome. Its absence from the diet is the basic cause of *scurvy*. *Vitamin E* is regarded as the *fertility vitamin*.

The following is a list of the foods in which the various vitamintins are to be found:

Vitamins A and D. Cod and other Fish Liver Oils. Liver of Fish, birds, and Mammals. Fish Roe. Egg Yolk. Butter. Milk. Cream. Cheese. Body Fat of Mammals. Body Fat of Fish. Heart. Kidney. Green Vegetables, Carrots and Tomatoes.

Vitamin B (or *B₁*). Dried Yeast. Wheat Germ. Yeast Extract. "Bemax." "Froment." "Marmite." Bran.

Buckwheat. Peanuts. Dried Peas, Beans, Lentils. Nuts. Egg Yolk. Hard Fish Roe. Heart, Liver, Kidney. Whole-wheat. Rye. Maize. Oatmeal. Whole Barley. Whole Rice (Brown). Orange. Tomato. Artichoke. Potato. Leek. Parsnip. Cabbage. Watercress.

Vitamin C. Oranges. Lemons. Grape-fruit. Tangerines. Tomatoes. Raw Green Vegetables. Swede Turnips. Carrots. Potatoes. Raspberries. Peaches. Pineapple. Blackberries. Apples. Bananas. (Most other Fruits; also the better brands of *Tinned Fruits*.) Milk. The better brands of *Tinned Vegetables*. Raw Liver.

Vitamin B₂ (or G). Dried Yeast. Yeast Extract. "Marmite." Lean Beef. Liver of Pork. Fish (canned Salmon). Egg White and Yolk. Wheat Germ. "Bemax." "Froment." Bran. Milk. Tomatoes.

Vitamin E. Wheat Germ. "Bemax." "Froment." Olive Oil and Cottonseed Oil. Traces in most of the foods mentioned above.

A Table of Acid- and Alkaline-Forming Foods

The following table gives a list of the acid-and alkaline-forming foods, and to make-up a *balanced diet* it is essential to have not more than 20 per cent. of the acid-forming foods to 80 *per cent.* of the alkaline-forming foods. It is most important to bear this fact well in mind, otherwise the diet will be unbalanced and lead inevitably towards disease.

The acid-forming foods

Barley and other cereals (such as rice, tapioca, oatmeal, Indian corn, etc.).

Beans (Broad, Haricot, and Kidney).

Bread (white).

Bread (wholewheat).

Breakfast Cereals of all kinds.

Cheese.

Chicken and all Game.

Eggs.

Fish (all kinds).

Jams and all Preserves.

Lentils.

Meat (all kinds).

Meat Broths, Extracts, and Soups.

Meat Fats.

Oatmeal Porridge.

Oysters and all Shellfish.

Peanuts.

Peas (Dried).

Prepared Meats (all kinds).

Sugar and sugar products such as confectionery, etc. (Barbados, Demerara and other natural sugars have very

strong alkaline elements in them; as also has treacle. These should be used for sweetening purposes therefore in preference to white sugar products.)

Tinned Fruits (because of their sugar content).

Walnuts.

White Flour products, all kinds.

Wholewheat Flour products, all kinds. (Wholewheat flour products are less acid-forming than white flour products, and the same remarks apply to brown rice, pot barley and all unrefined cereals. These are all less acid-forming than the refined product.)

The alkaline-forming foods

Almonds	Cream Cheese
Apples	Cucumber
Apricots	Dandelion Leaves
Asparagus	Dates
Beans (Lima)	Endive
Beetroot	Figs
Brazil Nuts	Grape-Fruit
Broccoli	Grapes
Brussel Sprouts	Green Peas
Brussel Tops	Hazel Nuts
Butter	Honey
Buttermilk	Kale
Cabbage	Leeks
Carrots	Lemons
Cauliflower	Lettuce
Celeriac	Marrow
Celery	Mushrooms
Chestnuts	Mustard and Cress
Cherries	Nut Fats
Chives	Nut Oils
Cream	Olive Oil

Olives	Salsify
Onions	Savoy
Oranges	Seakale
Parsnips	Spinach
Peaches	Spring Greens
Pears	Swedes
Pineapple (fresh)	Tomatoes
Pinekernels	Turnip Tops
Potatoes (in skins)	Turnips
Radishes	Watercress
Raisins	Water Melons
Runner Beans	

Note—All berried fruits such as raspberries, strawberries, gooseberries, currants, etc., are alkaline-forming, if eaten *quite ripe*; not if eaten unripe. Cranberries, plums, and rhubarb contain acid properties which are not oxidised by the system, as also does spinach to a certain extent. All prunes contain similar acid properties which are not oxidised by the system, except "Santa Clara" prunes, which are completely alkaline. Condiments, pickles, sauces, and vinegar are all acid-forming, as are tea, coffee, and alcohol. Cocoa contains considerable alkaline properties.

Fresh fruits and vegetables are of course the most important of all foods, because they consist almost entirely of water, mineral salts and vitamins, and are therefore of the utmost internal cleansing value to the system. It is such *non-concentrated* alkaline foods which must form the bulk of the dietary therefore with dried fruits, nuts, butter, milk, etc. (*i.e.*, the *more concentrated* foods in the alkaline list) making up the rest of the food eaten—as far as possible—in preference to starchy, protein, sugary and fatty foods from the acid-forming list.

